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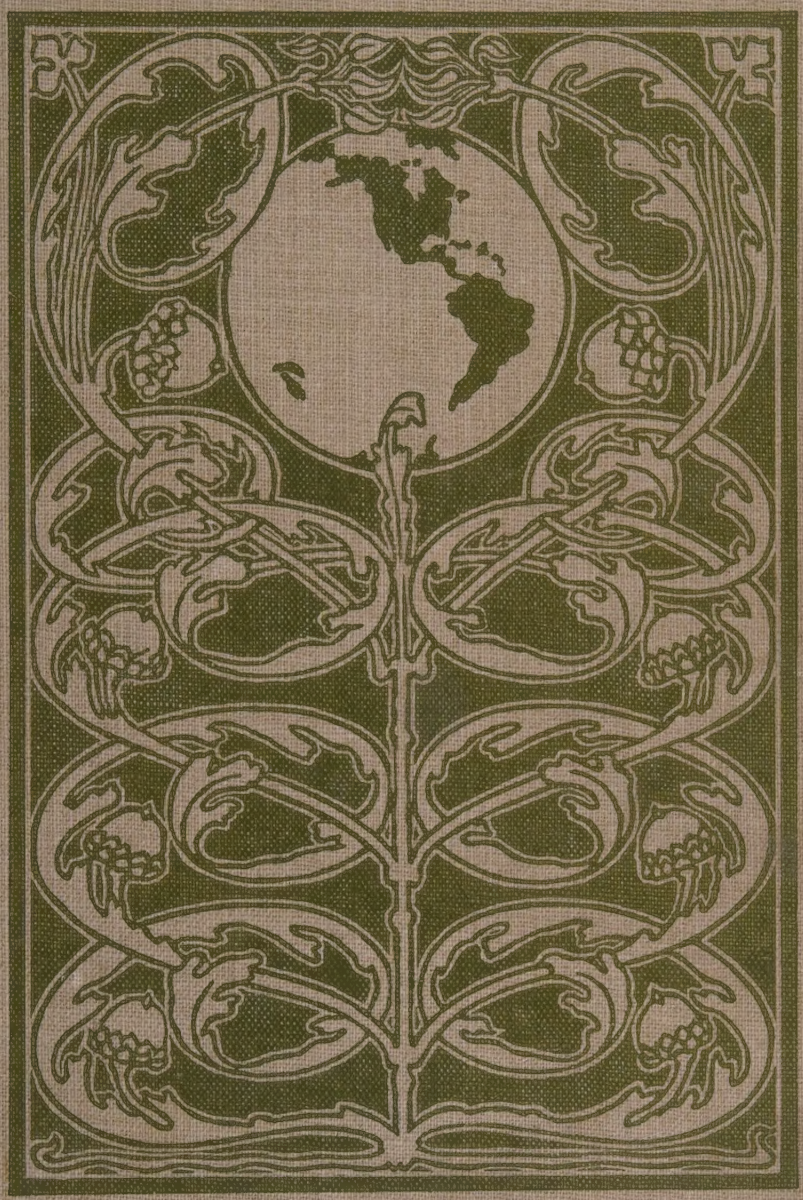

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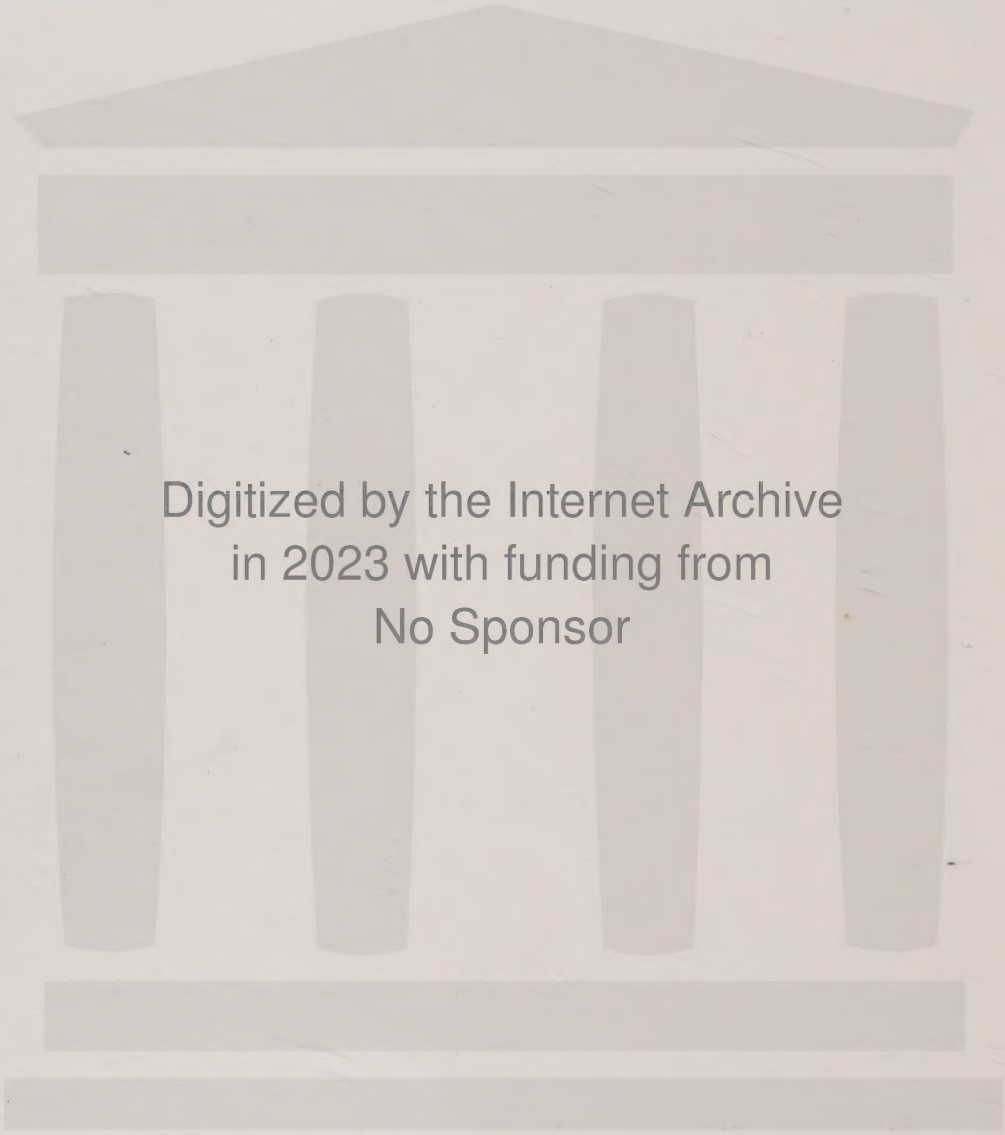
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MORTON'S

ELEMENTARY GEOGRAPHY

BY

ELIZA H. MORTON

MEMBER OF NATIONAL GEOGRAPHIC SOCIETY

NEW YORK ·.· CINCINNATI ·.· CHICAGO

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THE NEW GEOGRAPHY.

GEOGRAPHY naturally resolves itself into a description of that part of the earth's surface which is within one's field of observation and of that part which is beyond the home surroundings. The child should begin to study geography as soon as he is old enough to notice to any extent the objects about him. The instruction at first must of necessity be entirely oral. It should gradually enlarge the pupil's mental horizon and lead to conceptions of things far away. The oral work should be continued until the child is prepared to consider the earth as a unit. At this stage of progress a primary book may be placed in his hands. Each lesson, however, should be preceded by oral explanations.

The language of the book should be simple, concise, and accurate. It should begin with and constantly refer to the child's experience and environment. It should introduce, naturally and in logical order, the various topics pertaining to the earth as a whole. It should recognize the fact that the relation of the part to the whole is an elementary principle. When the earth is first considered part by part, the parts are with great difficulty, if ever, put into a harmonious whole. While it is true that the immense size of the earth, its movements, and their relation to other phenomena, are facts pertaining to a phase of geography which cannot be fully grasped by immature minds, yet distinct ideas of the elements which together form the world may be early imparted. It is impossible for children to study their own country intelligently as a whole, or in sections, without this preparatory world study.

The primary book should give the leading principles of the structural phase of geography as a basis for future work. It should clearly show also the relation of relief, drainage, and other physical features to the life of man. It should constantly use the power of comparison, of contrast, and of correlation to make the children see and think, and to aid the memory. It is allowable to present some attractive non-essentials to promote interest.

The primary book should aim to furnish those who may never be able to enter the grammar school with a knowledge and an inspiration that shall lead them to study geography with profit and pleasure all their lives. The new geography of to-day is embodied in these principles.

Grateful acknowledgments are due to Mr. George M. Sayre, author and teacher, for editorial supervision, valuable suggestions, and helpful criticisms in connection with the preparation of this book.

E. H. MORTON.

May, 1900.

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KEY TO PRONUNCIATION.

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ELEMENTARY GEOGRAPHY.

1. THE STORY OF THE EARTH.

As we walk through the fields or along the country roads or in the city parks we see the grass, the flowers, the trees, and the land from which they grow. We may see also people and animals moving from place to place.

When we look up we see the sky and the clouds. Sometimes rain or snow is falling. In the evening we may see the moon and the stars. There are many useful and beautiful things about us, which supply our wants and give us pleasure.

What we see of the land at one time is but a very small part of the earth. Our own country stretches away for a great distance, and beyond it are other lands with strange animals and strange people, where the flowers, fruits, and trees are different from those which grow where we live.

If we wish to know about things of the earth which we have not seen, we may learn of them from books and pictures made by people who have seen them.

Tell what you can see in the picture at the beginning of this lesson. Name a kind of tree which you have never seen except in a picture. Name an animal which you have read about, but have never seen. Is there anything shown in the picture that you have never seen?

The things that we see around us, such as hills, brooks, fields, flowers, trees, and animals, and what we may learn about them from books and pictures, tell us the story of the earth.

The story of the earth is GEOGRAPHY.

2. LAND AND SEA.

We have seen a picture of land; here is one of land and sea. The sea covers about three fourths of the earth's surface.

In traveling over the land we may see, here and there, large beds of rock. Such beds are found in all parts of the earth, but most of them are covered by water, or by earthy matter such as loose rock, sand, and soil, from which trees, grass, and other plants are growing.

Much of this earthy matter was once rock, which has been broken and ground in many ways. How this has been done we shall learn later. Find some coarse sand and some fine sand. Sand is loose grains of rock. We can grind up rock so as to form sand.

Wherever we may go, either on land or on the sea, there is solid rock beneath us. Sometimes, as we have seen, it rises above the surface of the soil, and sometimes it lies far below us at the bottom of the sea.

In looking over the land you will see that it is uneven, while the sea stretches away smooth and level. All land is more or less uneven, while water, when still, is always level.

3. SHAPE AND SIZE OF THE EARTH.

You have all seen the moon. What is its shape? Is it round like a coin, or round like a ball? If we look at it through a spyglass, we can see its shape very plainly. It looks like the picture.

The moon as seen through a spyglass.

So we can see that the moon is round like a ball, and that it floats in the sky like a great balloon. If we could look at the earth from the moon, we should see that the earth, too, is a great ball floating in the sky.

You have traveled on a railroad train, and perhaps have been far enough from home to learn for yourself that the earth is very large. If you could ride day and night in a train running thirty-five miles an hour, it would

take about a month for you to travel 25,000 miles, which is the distance around the middle of the earth.

Get some one to show you a tree or building that is just a mile from your schoolhouse. If you live in a city, find out how many blocks make a mile. A man can walk about three miles in an hour.

The greatest distance through any ball is about one third as much as the greatest distance around it. As the greatest distance around the earth is about 25,000 miles, what is the greatest distance through it? How do you find this?

Perhaps you may have learned the meaning of *circumference* and *diameter*. If you have not, remember that the circumference of a ball is the greatest distance around it, and the diameter is the greatest distance through it.

4. HOW TO FIND DIRECTIONS.

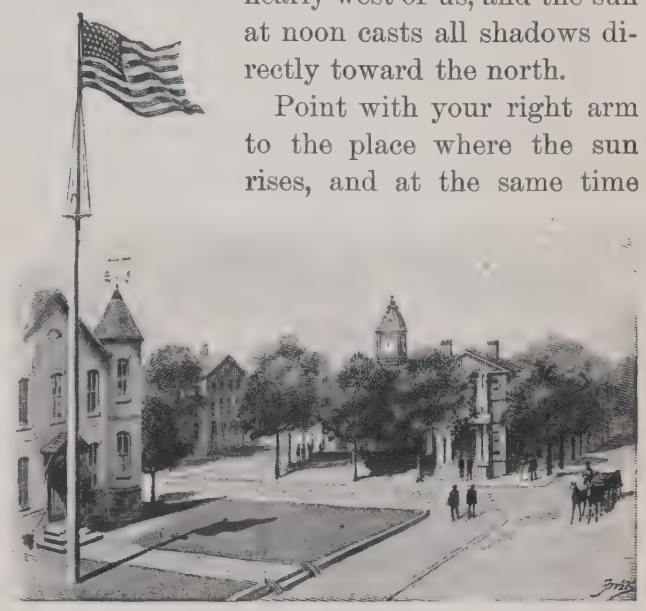
Direction means toward something. "In the direction of the schoolhouse" means toward the schoolhouse; "in the direction of home" means toward home.

In our own neighborhood we may think of any well-known point as a direction point; thus, the Town Hall. In the great world, however, some direction points must be chosen on which all people agree.

There is a certain point upon the earth called the North Pole, and directly opposite, on the other side of the earth, is another point called the South Pole. These two points are taken as direction points by the people of all countries.

From any point on the earth, toward the North Pole the direction is *north*, and toward the South Pole it is *south*. The directions *east* and *west*, anywhere upon the earth, are squarely crosswise to those of north and south. In our country the sun rises nearly east of us, and sets nearly west of us, and the sun at noon casts all shadows directly toward the north.

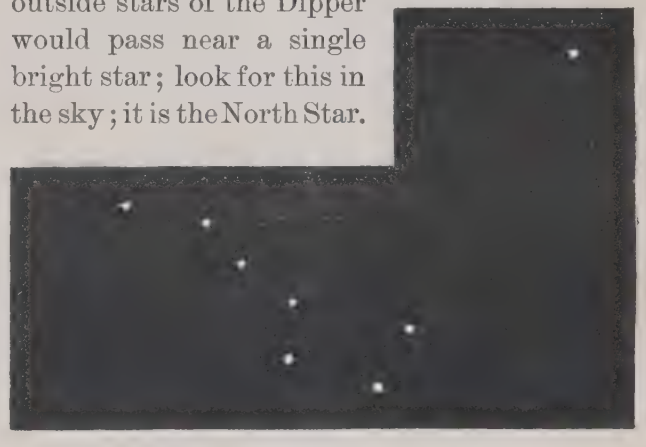
Point with your right arm to the place where the sun rises, and at the same time



The shadows at noon point north.

point with your left arm to the place where it sets; you will then be facing the north.

Directly over the North Pole is the North Star. To find the North Star, look for a group of stars shaped like a dipper. A line through the two outside stars of the Dipper would pass near a single bright star; look for this in the sky; it is the North Star.



The Dipper and the North Star.

Directions may be found also by means of the compass, the needle of which always points north or nearly so.

Remembering that east and west are crosswise to north and south, we know that when we face the north our right side is toward the east and our left side is toward the west. Halfway between north and east is northeast. Where is southeast? Southwest? Northwest?

Point north from your schoolhouse. How do you know that that direction is north? What direction is opposite north? Find east. West. Let each pupil tell in what direction from the schoolhouse he lives.

So the earth is lighted by the sun.

5. LIGHT AND HEAT.

The earth's light comes from the sun. It shines upon the half of the earth that is toward the sun. On the side where the sun's light shines it is day. On the side where the sun's light does not shine it is night.

If the earth did not turn, one side would always have day, and the other night; but *the earth turns*, so that the part that is now toward the sun and in the light will in a few hours be in darkness, and the part that is now in darkness will then be in the light.

It looks to us as if the sun moves, and we say that it rises and sets, when, really, it keeps in one place. When we went to bed last night, our part of the earth had moved around out of the sunlight, and all through the night the earth was steadily turning, bringing us again to the light of the sun and the morning of a new day.

At home, this evening, place a lighted lamp on a table. The lamp sends its rays of light throughout the room, just as the sun sends out its rays. Hang an apple in the room by a piece of twine. Now observe that half the apple is lighted by the rays from the lamp, while the other half is not. Just so the earth is lighted by the sun. Now cause the apple to spin slowly on the string. The parts that were in darkness come around into the light, and the parts in the light go around into the shadow. In the same way the turning of the earth brings day and night.

The time in which the earth turns, or *rotates*, once is called *a day*, and this day is divided into twenty-four hours. That part of the twenty-four hours during which we are in the light is called *day*, and that part in which we are in darkness is called *night*.

The sun sends out heat as well as light. The rays of heat, like the rays of light, come straight from the sun, and fall upon that part of the earth that is turned toward the sun.

The rays of the sun strike some parts of the earth more directly than they do others; hence there is greater heat in some places than in others. The heat rays from the sun come through the air without warming it much. They warm the land and the water, however, and these in turn give out heat to the air.

TEST AND REVIEW QUESTIONS.

1. What is Geography?

2. Of what is the earth made up? How much more water than land is there? Where do we find rock? With what is most of the rock covered? Compare the surface of the land with the surface of the sea.

3. What is the shape of the moon? How can you tell? What is the shape of the earth? How many miles is it around the middle of the earth? Through its center? Draw a circle and its diameter.

4. What is direction? In what different ways can you find north? How can you find south? East? West?

5. From what does the earth get its light? Its heat? What causes day and night? The earth rotates once in how many hours? What is this period of time called?

6. VIEWS OF THE EARTH.

You have been told that the earth is made of rock, and that three fourths of the outside, or surface, of this rocky ball is covered with salt water. This great body of salt water is called the *sea* or the *ocean.*

The rest of the surface rises above the water, and is called *land.* Most of the land is in three large masses called *continents.* There are also thousands of smaller bodies of land which rise above the water as *islands.*

If three fourths of the earth's surface is covered with water, what part of the surface is land? Have you ever seen an island? A continent? The ocean?

1. North America and South America.

Here is a picture of the earth. Notice that it shows a great mass of land. This land is a continent, and is called the *Western Continent.* Point to some islands.

Notice also that this great mass of land is in two parts or divisions. These are the *grand divisions* of North America and South America. Our country is part of North America. What is the name of our country?

Ask your teacher to make a dot on North America to show where you live.

The ocean, as you see, surrounds the continent and the islands. As the continents are divided into parts, so the great sea or ocean is divided into parts. Each of these parts also is called an ocean.

The dot upon the upper part of the picture shows where the North Pole is. You have learned something about directions; in what direction from North America is South America? What ocean is east of the Western Continent? What ocean west?

In the second picture the earth has turned somewhat toward the east. Notice that there

2. Pacific Ocean.

is but very little land in this picture. What great ocean does it show? Nearly half the earth is covered by the Pacific Ocean.

East of this ocean you may see the edge of the Western Continent, and west of it is a part of *Australia,* the smallest of the continents. Australia and the islands that you see in the Pacific Ocean are sometimes considered as forming a grand division which is called Oceania.

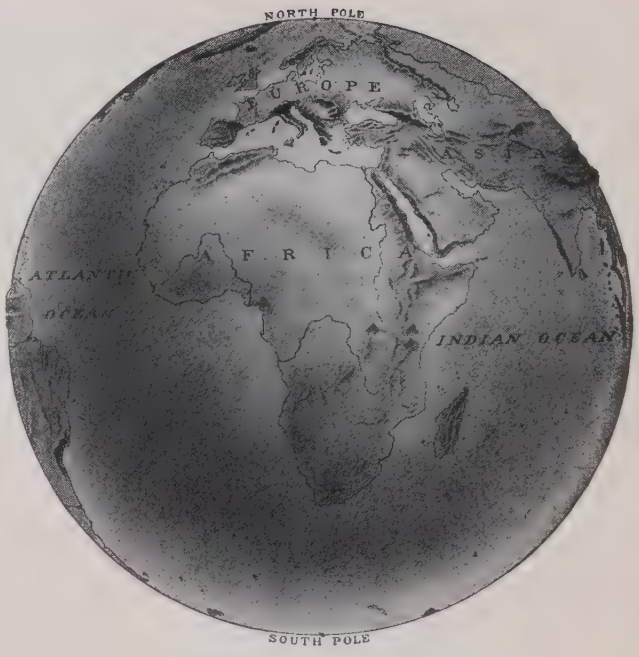
3. Asia and Australia.

The third picture shows the earth turned still farther toward the east. Here you may see the whole of Australia, and that part of the *Eastern Continent* which forms the grand division of Asia.

West of Australia lies the Indian Ocean, and beyond that appears the edge of another grand division of the Eastern Continent, called Africa. What grand division is north of the Indian Ocean? What small continent east? What grand division west?

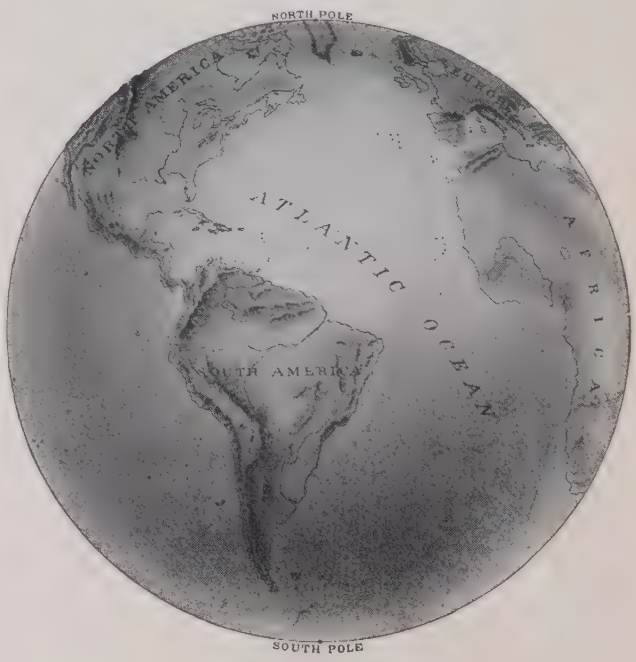
Turning still farther, the earth appears like the fourth picture. The whole of Africa is now in view, and north of it is Europe, which is the smallest grand division of the Eastern Continent. Name all the grand divisions of the Eastern Continent. Name the two grand divisions that form the Western Continent.

The last picture shows the earth as having turned so far around as to bring the Western Continent again in sight. This picture gives us a view of the Atlantic Ocean, which is next in size to the Pacific. Name the three continents that we have seen. The six grand divisions.



4. Europe and Africa.

That part of the great sea or ocean which lies around the North Pole is called the Arctic Ocean. Arctic means northern. Around the South Pole is the Antarctic Ocean. Antarctic means opposite to Arctic. Name the five oceans shown in these pictures of the world.



5. Atlantic Ocean.

7. WHAT GLOBES TELL US.

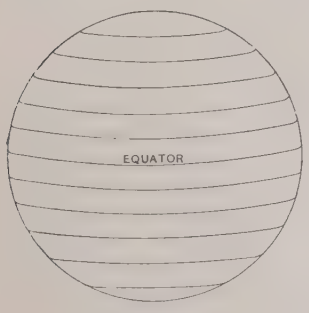
As the earth is a great ball, or sphere, it may be represented by a small sphere, called a *globe*, which is useful in the study of geography.

A globe is made so as to turn upon a spindle. The earth turns in the same manner, but not upon a real spindle like that of a globe. It has an imaginary spindle which is called the *axis*.

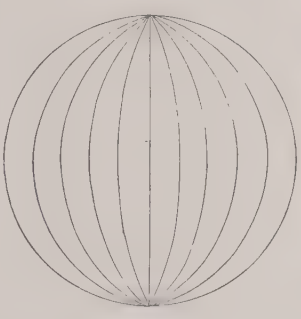
The ends of the earth's axis are called the *poles*. The pole that lies under the North Star, about which we have learned, is called the *North Pole*. At the opposite end of the axis is the *South Pole*. These poles are both shown on a globe.

Picture of a globe.

On all globes made to represent the earth we find also a number of lines drawn from side to side, and because throughout their whole length these lines keep the same distance apart, they are called *parallels*. The parallels run exactly east and west, and therefore show us these directions correctly.



Parallels.



Meridians.

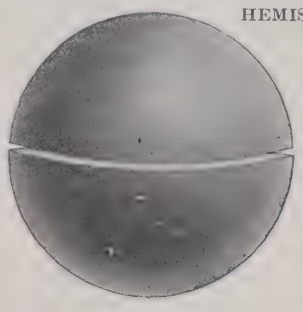
The parallel that goes around a globe midway between the poles is called the *equator*, and the distance north or south from the equator is called *latitude*. Hence, if we know that a place is in north latitude, we must look north of the equator to find it. Where do we look for a place in south latitude?

The lines drawn from one pole to another are called *meridians*. They run exactly north and south, and thus point out these directions on a globe. The distance east or west from a certain meridian is called longitude. Hence, if we know that a place is in east longitude, we must look east of this meridian to find it. The parallels and meridians are all numbered.

Upon a globe are shown also the outlines of the different bodies of land and water into which the surface of the earth is divided, and also the principal cities and countries of the world.

The city of Philadelphia is near the place where the parallel of north latitude marked 40° crosses the meridian of west longitude marked 75°. If you have a globe in your schoolroom, see if you can find on it the name of this city. Notice the latitude and longitude of some other place, and from these ask one of your classmates to find that place on the globe.

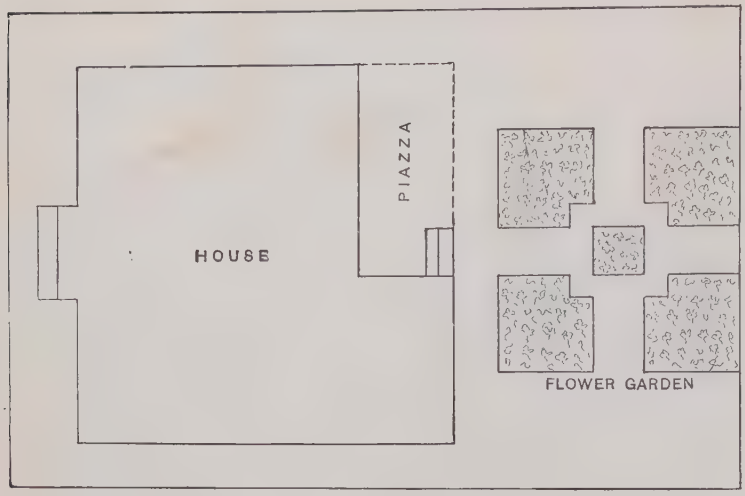
HEMISPHERES.



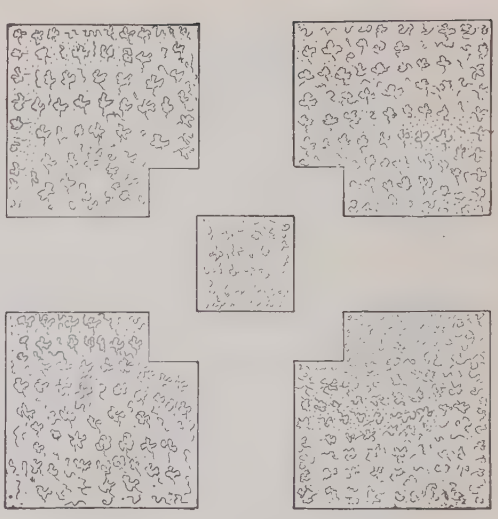
Northern and southern.

Eastern and western.

If we divide a globe into halves, each half is called a *hemisphere*. *Hemi-* means half. If the division is made along the line of the equator it gives us a northern hemisphere and a southern hemisphere. If it is made along the line of a meridian it gives us an eastern hemisphere and a western hemisphere.



Map or plan of house and flower garden.



Flower garden on larger scale.

8. WHAT MAPS TELL US.

If we draw upon a flat surface, as a sheet of paper, the outlines of the bodies of land and of water, and the direction lines that we find on a globe, we shall make a *map*. A map of a place may be large or small, just as a photograph of a person may be large or small. Maps may be made of the whole earth's surface or of any part of it. A map of half the earth's surface is called a map of a hemisphere.

A map of a very small part of the earth's surface is often called a plan. At the left side of this page is a map, or plan, of a house and grounds with a flower garden. One inch on this plan represents twelve feet. At the right is a plan of the same flower garden, but on a larger scale. On this plan one inch represents six feet.

How wide are the paths of the flower garden? (*Measure from either map.*) How long and wide is the garden? How large is the middle bed? How long and wide is the house?

Every map is drawn to a *scale;* that is, an inch on the map stands for some given number of feet or miles on the earth's surface. On the map of the United States (page 49) an inch stands for 250 miles. Maps are more convenient than globes because they can be printed in books. They may also be made to show places on a larger scale than that of a common globe.

When you look at a map you must not think of it simply as colored paper covered with lines and dots. When you know the meaning of these lines and dots you can read a map as easily as you can read a story in a book.

With a map or globe before you in proper position to study, remember that north and south are along the meridians, and east and west along the equator and the other parallels. When these lines are not shown, north is usually toward the top of the map.

Draw a map of the flower garden above on a scale of three feet to one inch. Which is the larger map —one on a scale of three feet to an inch, or one on a scale of six feet to an inch?

At the middle of a sheet of paper draw a little square to stand for the schoolhouse. Now above the square, near the top of the sheet, make a dot to stand for the North Pole. Draw a line from the schoolhouse to the North Pole. What is the direction of that line? Draw a line to the east. West. South. Northeast. Northwest. Southwest. Southeast.

On another sheet draw a square for your home. North of it draw a tree. West of it draw a pond. East of it draw a hill. South of it draw a church. In what direction is your home from the church? From the tree? Draw a brook from the tree to the pond; in what direction does the brook flow? In what direction is the church from the pond? The hill from the church?

A slope.

9. SURFACE OF THE LAND.

Here is a picture showing a *slope* of land. It shows also the edge of the land, or *coast line.* Does the slope continue under the water? How do you know this?

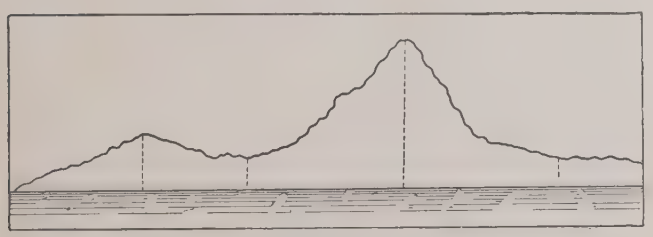
Hill, valley, and mountains.

Let us go inland from the coast line to the top of the hill. What is a hill? Here we are at the top; what do we see before us?

Notice that the ground before us slopes to the stream below, and beyond that it rises toward the distant ridge, which is very much higher than the hill. This distant ridge, because of its great height, is called a *mountain.* What is the difference between a mountain and a hill?

We go forward to the bottom of the hill and are then at the meeting point of two downward slopes. We are in a *valley.*

We now climb the slope from the bottom of the valley to the top of the mountain. We are much farther above the level of the sea than we are above the bottom of the valley. The height of all land is measured from the level of the sea.



Level of the sea.

The highest land of the earth reaches more than five miles above the level of the sea. Distance above the level of the sea is called *altitude.*

Beyond the mountain top, or *summit,* the ground again slopes downward to a broad and nearly level surface which stretches away as far as the eye can reach. A broad extent of land that is level or nearly so is called a *plain.*

Does your schoolhouse stand on a plain? Do you live in a valley, on a slope, or on a plain? Are there any mountains near where you live?

A plain.

TEST AND REVIEW QUESTIONS.

6. What is a continent? An island? A grand division? What grand division is composed of a continent and islands? Name the largest ocean. How much of the earth's surface does it cover?

7. What is the earth's axis? What are the poles? What are parallels? Meridians? What is the equator? Latitude? Longitude? What is a hemisphere?

8. Explain the meaning of "scale" as applied to maps and plans. How are directions found on a map?

9. What is a slope? A mountain? A valley? A plain? What is meant by altitude? Which has the greater altitude, a hill or a mountain? What is meant by "level"?

10. HIGHLANDS AND LOWLANDS.

In some parts of the world there are plains that lie far above the level of the sea. Such plains are called *plateaus*. From these plateaus mountains sometimes rise still higher. These elevated regions, whether mountains or plateaus, are called *highlands*.

In other parts of the world there are plains that lie but a short distance above the level of the sea. Such regions are called *lowlands*. More people live in the lowlands than in the highlands. Why?

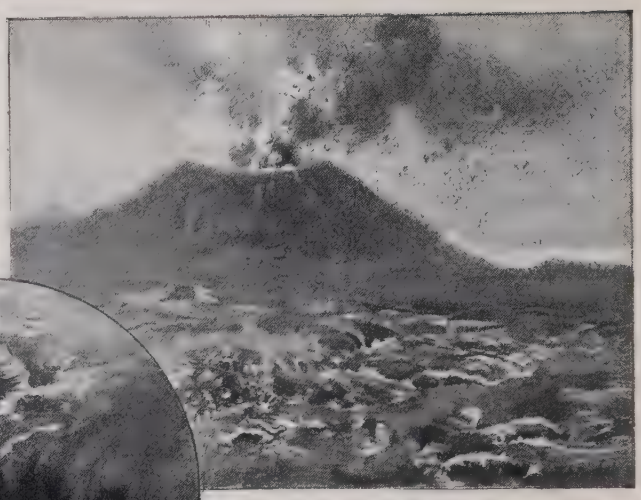
Lava flow — cooled.

You have seen mountains, or pictures of them, and have noticed the lofty ridge that runs along for a great distance. This is a *mountain range*. If we could stand at the summit of this range we might see beyond us ridge after ridge, as far as the eye could reach. A number of mountain ranges form a *mountain system*. Some mountain systems are thousands of miles long and hundreds of miles wide.

If you place on a table a number of handkerchiefs one upon another, and push gently from opposite sides, what will be the result? The folds, or ridges, of the handkerchiefs will represent a mountain system.

In looking along a mountain range you will see here and there a portion of the ridge that rises boldly and is much higher than other parts of the range. This is called a *peak*. Sometimes mountain peaks rise almost by themselves from the plains. There are mountain peaks whose altitude is more than five miles.

Here is a picture of a mountain peak. Clouds of steam and ashes are pouring like smoke from its summit, and streams of melted rock, called *lava*, are running down its slopes. The melted rock inside of the earth often breaks through the outer crust, forming a *volcano*. The opening from which the lava comes is called a *crater*.



A volcano.

The flames that appear to come from the crater of a volcano are only the glare of the white-hot lava upon the clouds of steam and ashes that come from the same opening. Have you ever seen pumice-stone? It is lava that has been blown full of small holes by the action of steam. For what is it used?

11. THE SEA OF AIR.

What is breathing? If the air were taken away, or for some reason could not get into our lungs, what would happen? Can we see the air? How, then, do we know there is such a thing as air?

Much of the earth's surface is covered with a sea of water, called the ocean. In the same way the whole earth — land and water — is covered with a sea of air, called the *atmosphere*. It extends for a great distance above the earth, but beyond five or six miles it is so thin that one could not live in it.

You have seen water in motion. The air moves in the same way as the water does. You know it moves by feeling its force, or by seeing what it does. Have you ever seen a windmill? What makes it turn? What makes a sailboat move? What is it that tears down houses and trees in the path of a cyclone or hurricane? What do you call air in motion?

The sparks fly upward.

What starts the air in motion? Have you ever built a bonfire and watched the sparks carried upward by the warm air? If you fill a paper balloon with hot air it will go up to a great height. When air is heated, then, it rises. As the heated air rises, the colder air around it rushes in to take its place. In this way *winds* arise.

We have learned that the air gets most of its heat from the land and water which are warmed by the sun. In those parts of the earth that get the most heat the warm air is constantly rising, and the cooler air on either side is moving in to take its place. In some parts of the earth the wind blows gently and steadily in the same direction for many days at a time.

Winds blowing *from* the north are called north winds. Those blowing from the south are called south winds. From what direction do the east winds blow? The west winds? From what ocean do the east winds come, in our country? The west winds? (See map, page 37.) From what direction is the wind blowing to-day? How do you know this?

12. HOW THE LAND IS WATERED.

Have you noticed the water of a brook flowing steadily, day after day and month after month, and wondered where it all came from? It came from the ocean to the land, and we will tell you about its wonderful journey.

When water lies open to the air it slowly passes away. We cannot see it go, but after a while we can see that it has gone. You have noticed water in a basin or puddles in a road disappear in this way. Where does the water go?

It passes into the air in particles so fine that we cannot see them. Water in this form is called *vapor*. When water passes away in vapor we say that it *evaporates*. From every wet surface on the earth these little particles are all the time going out into the air.

Summer clouds—a coming thunder-storm.

The warmer air is, the more vapor it can hold. In some parts of the earth, where the air is always warm, it loads up heavily with vapor from the ocean. This warm air, laden with water, blows over the land sometimes for many days till from some cause it becomes cooled, and can no longer carry all its load.

When this happens, the little particles of water that can no longer be carried join one another, making larger particles, which we can see, and which form *clouds*. When it becomes

A rain storm

still colder up where the clouds are, these larger particles join one another, making drops that fall on both sea and land as *rain*.

Have you ever seen water collect in drops on the outside of a pitcher of ice water, or on the inside of a cold window pane at your home? It comes from the air in the room, in the same way that raindrops are formed outdoors.

The air will take up only pure water, leaving behind whatever may be mixed with it. Thus when the air takes water from the ocean, it leaves behind the salt.

Clouds are always changing form. Often they disappear as you watch them. When this occurs you may know that the air up where they are has become warmer, and the cloud particles have changed back into vapor.

A *fog* is only a cloud near the ground. If you were ever in a fog you were in a cloud. Most of the clouds that we see are from one to three miles above the earth.

Sometimes the air up where the clouds are becomes very cold. When this happens the particles of water freeze as they join one another, and thus build up beautiful little crystals of many shapes, which fall to the earth as flakes of *snow*. Snow, then, is water in another form.

A snowstorm.

Go out, when it snows, and catch some snowflakes on a cold, soft, dark cloth, and examine them. Use a magnifying glass, if you can get one. You will see forms like those in the picture, and many others quite as beautiful. Each one will have six points.

When the raindrops as they fall pass through a layer of very cold air, they are frozen; other drops freeze to them, making them larger, and they come to the earth as *hail*. Sometimes hailstones are so large that they break panes of glass and beat down growing crops. Animals have been killed by falling hailstones.

In warm, dry weather we often see, in the morning, drops of water hanging upon the grass, leaves, and flowers. During the night these plants, becoming cold, have chilled the air which touched them, so that it left upon them a part of its moisture. These drops are called *dew*.

In cool, dry weather we find *frost* instead of dew. The frost is formed by the freezing of the water particles on the plants, much as snowflakes are formed up in the air. Frost has beautiful shapes like those of snow.

Thus we see that the water of the ocean carried through the air reaches the land as rain, hail, snow, dew, and frost. Let us see how this water finds its way back to the ocean.

13. HOW THE WATER GOES BACK TO THE SEA.

As soon as the water from the clouds reaches the ground it seeks to go lower. Most of it sinks into the ground; but if it rains hard, much of the water flows in little *rills* along the surface and down the slopes of the land.

The water that sinks into the ground works its way downward between the loose bits of sand and gravel until it reaches a bed of rock or clay through which it cannot pass. It then trickles along over these underground beds of rock or clay, which slope in much the same way that the surface does.

Whenever you see a long slope of land, think that even in the dryest weather water is working its way along not many feet below the parched surface.

A spring — the source of a stream.

Did you ever see a spring and drink of its clear, cool, sparkling water? A *spring* is the place where some of the underground water finds its way to the surface. Most rills and brooks have their beginnings, or *sources*, in springs. There are springs at the bottoms of brooks and rivers, and they have been found even at the bottom of the sea.

Do you know what a well is? It is a hole dug or bored into the ground to reach the underground flow of water.

Wherever water runs along the ground there must be a slope. Sometimes we cannot see that there is a slope, but the water is sure to find it. So, when we see a stream flowing along in a valley we know that the bottom of the valley slopes as well as the sides. We know also that the stream leads to the lower end of the valley.

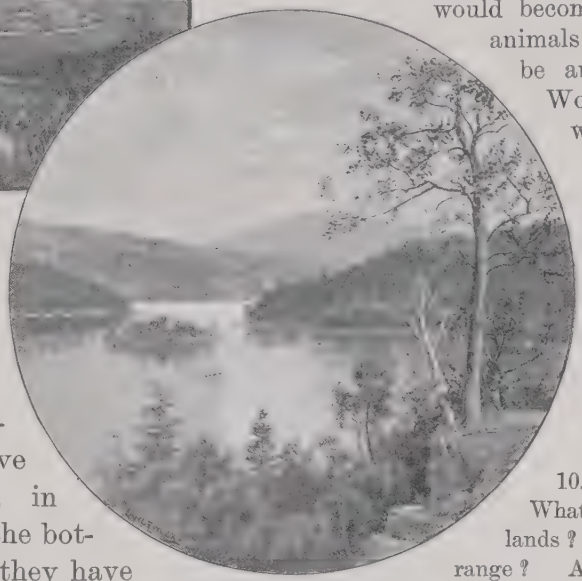
As rills unite and form larger streams, called *brooks*, so brooks unite and form still larger streams, called *rivers*. Rivers often unite and form still larger rivers, which pour their waters into the sea. The place where a river flows into some other body of water is called its *mouth*.

When a stream comes to a basinlike hollow in the land, the water spreads out and fills up the hollow, running over the lowest place at the edge. A small body of water thus formed is called a *pond*. A large body is called a *lake*.

Thus we see that rills, brooks, and rivers carry back to the sea the water which was brought from it by the air.

Write what you think would happen if the ocean should cease to give up its water to the air. What would become of the plants? The animals? Man? Would there be any brooks and rivers? Would there be any fresh water on the earth?

Suppose the wind should cease to blow, could the clouds come over the land? Could any rain, hail, or snow fall upon the earth?



A lake.

TEST AND REVIEW QUESTIONS.

10. Tell what a plateau is. What are highlands? Lowlands? What is a mountain range? A mountain system? A peak? What is said of the extent of some mountain systems? Tell what a volcano is and make a sketch of one. Name some noted volcanoes about which you have heard or read.

11. What is the atmosphere? What would happen if we were deprived of air? Tell how winds arise. What is a north wind? An east wind? How can you tell in what direction the wind is blowing?

12. Write or tell the story of a drop of rain. How is snow formed? Hail? Dew? Frost? What is fog? Draw a picture of a snow crystal.

13. Tell how the raindrops get back to the sea. What are the sources of most streams? Where does the water of a spring come from? Of a well? What is a brook? A lake? A pond? A river? Where is the mouth of a river?

River basins and divides.

14. MORE ABOUT RIVERS.

You have learned that rivers receive the water of many smaller streams, called *branches*. The land that is drained by a river and its branches is called a *river basin*, and the river and its branches draining a river basin are called a *river system*. A number of small river systems sometimes unite and form a great river system, thousands of miles in extent.

A river basin is so called because the land slopes inward from the sources of the streams in the same manner as a dish or basin slopes from the rim to the bottom.

You have seen the rain falling on the roof of a house and running down on either side. In the same way the water falling on a rise of land drains off in different directions. Any rise of land that sends the water into different river basins is called a *divide*.

In some places a divide is a high mountain range, and in others a very slight rise of land. In our own country there are divides from which the water runs off in opposite directions, and reaches the sea at points more than two thousand miles apart.

Let us take a trip in canoes on a river and its branches. What is a canoe? The water near the source of the stream will not float our canoes, so we must begin our trip a few miles from the source.

We soon come to a place where the water runs very swiftly. What causes this? There are many dangerous rocks ahead of us, and so we land and carry our canoes down the stream to a place where the water flows more gently. A swift place in a stream is called *rapids*.

At the foot of the rapids the water plunges suddenly over a ledge of rocks. Such a fall of water is called a *waterfall*, or *cascade*. When the water of a large river falls over a high, steep, rocky ledge it forms a *cataract*.

Below the rapids and the waterfall the stream runs smoothly, and we sail past farms and villages until we reach the river. As we go down the river toward its mouth we have the *right bank* at our right hand and the *left bank* at our left hand.

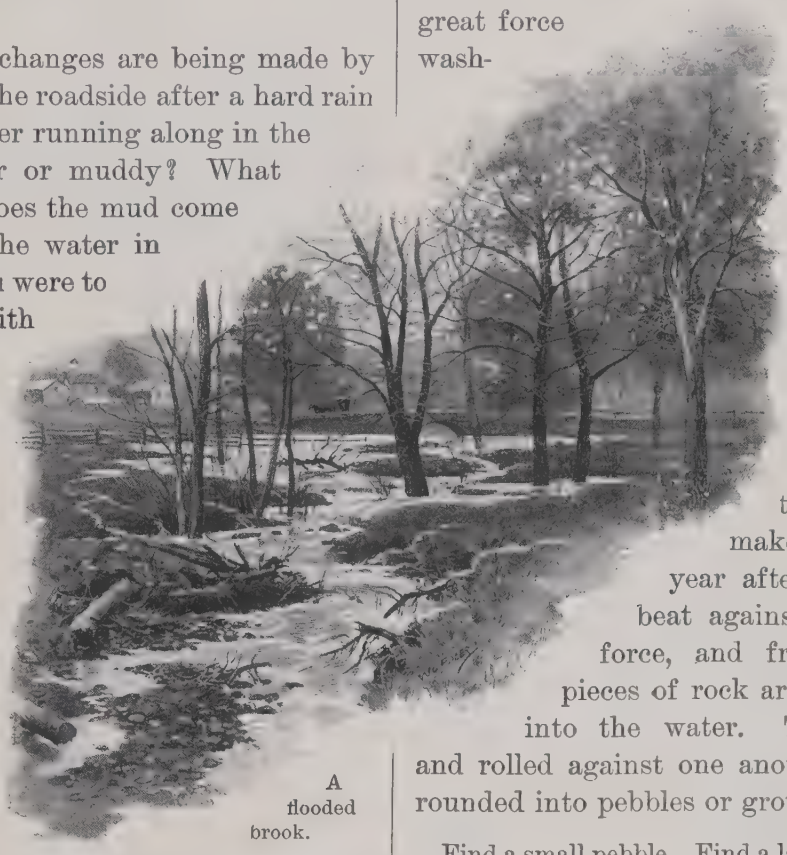
The water plunges suddenly over a ledge of rocks.

In a day or two we reach a large city. Here we take a steamboat and sail down the river and out to sea. Our journey ends at a famous city by the sea, where many people spend their summers. Name such a city.

15. HOW THE LAND HAS CHANGED ITS FORM.

A study of the earth shows that great changes were made on its surface before it became fit for man to dwell upon. Since then men have seen that changes are still going on. Most hills and mountains are not so high as they once were, many valleys are not so deep, and new plains have been formed where once the sea was.

Let us see how changes are being made by water. Stand by the roadside after a hard rain and notice the water running along in the gutter. Is it clear or muddy? What is mud? Where does the mud come from that colors the water in the gutter? If you were to fill a large bottle with this muddy water and let it stand for an hour or two, what would happen? Try this.



A flooded brook.

Let us go to the nearest brook. It is brimful of rushing, muddy water which has poured into it from thousands of little rills. In places the brook is over its banks, and when it drains off, we shall find mud, sand, and small stones that have been spread over the ground by the action of the water.

The river on its way to the ocean receives the water of many brooks. Some of the mud that is in the water of a river settles like that in the bottle, but much of it is carried on till it reaches the sea.

When the mud that reaches the sea is not carried away by the ocean waters it settles to the bottom beyond the mouth of the river, and in time builds up new land. There are many rivers where the land has thus grown for miles. Sometimes the mud chokes the mouth of a river, and the water forcing its way to the sea makes a number of mouths. The land between these river mouths is called a *delta*. Why?

The ocean also is at work changing the form of the land. Let us walk along the seashore. The huge waves are dashing with great force against the land, washing up sand and pebbles. In some places wide, sandy beaches are built up, and in others they are carried away.

Wherever the shores of the ocean are bold and rocky, it would seem that the water could not make much change; but year after year, the waves beat against them with great force, and from time to time pieces of rock are loosened and fall into the water. These are dashed and rolled against one another until they are rounded into pebbles or ground into sand.

Find a small pebble. Find a larger smooth rounded piece of rock. There are plenty of these along the seashore, and in the beds of rivers and brooks. Sometimes the farmer plows them up in fields that are far away from a river or from the sea. Wherever they are thus found you may be sure that water has once been.

You have all seen clouds of dust driven by the wind. Have you ever seen sand piled up in heaps by the wind? In many places near the sea, tall buildings and even large forests have been covered by the drifting sand. A great deal of loose earthy matter is thus shifted.

Ice also has done much to change the surface of the land. Did you ever see a rain spout split or a pitcher broken by the freezing of the water in it? When water freezes it swells out with great force, and even the little that finds its way into the cracks and seams of the rocks, when it freezes there, splits off pieces of greater or less size.

In the very cold countries near the poles there are great ice fields covering much of the land. From a study of the rocks of our own and other countries, it is thought that thousands of years ago thick fields of ice covered large portions of land that are now the homes of men.

These vast ice fields, it is believed, moved slowly across the land, and as they moved they tore off masses of rock from the hilltops and mountain sides. These pieces of rock were carried by the ice miles away from their native beds. Some of the stones were rounded

Bowlders.

off like pebbles. When the ice melted they were dropped here and there over the surface of the land as we find them to-day. Such rocks are called *bowlders*.

On some mountain tops seashells are found in great numbers. This proves that in past ages the sea covered this part of the land, and that, through some force inside of the earth, the bottom of the ocean was raised high above the surface of the water. This force is still at work, for in some places along the seacoast the water-marks show that the land is rising year by year, while in others it is sinking.

In this way water, ice, wind, and other causes have been steadily at work ever since the world was made. In some places they have built up, in others torn away. They are still at work, but, in most cases, so slowly that it takes years before any great change can be noticed.

Waves dashing against a rocky bluff.

16. THE OCEAN.

If we travel in any direction—north, south, east, or west—we will in time reach the ocean, as all the land of the earth is surrounded by its waters. Standing upon its shore and looking out over the water, we will see that it stretches away until it seems to reach the sky. We may sail for weeks on the ocean without seeing land.

The water of the ocean looks pure and clear like that which flows from a spring, but it is salt and bitter to the taste. It is never at rest. Even in calm weather it heaves and tosses, and its waves break in long lines upon the sandy beach, or dash against the rocky bluffs. In great storms the ocean waves are thirty or forty feet high.

Have you ever seen a field of wheat when the wind was blowing over it? It rises and falls in waves. In much the same way the water of the sea, when dis-

turbed by the wind, rises and falls in waves, but does not have much forward movement, except near the shore, where the crests of the waves topple over and rush upon the beach.

The bed of the ocean has its high and low places, like the land, although its slopes are not so steep. In some few places the water is more than five miles deep, and the bottom is covered with a slimy mud made up of shells so small that thousands of them taken together would be no larger than a small grain of sand. What do we use to examine such small objects?

You have seen a piece of chalk. Chalk is made up of these shells, which have become a solid mass through great pressure. Layers of chalk are found by digging in the earth, but wherever we find them we know that the ocean once covered the place.

If you were ever at the seashore you must have noticed that twice every day the water came up and covered the beach, and twice a day it went down, leaving a wide stretch of sand, or of mud and rocks, where the water had been. This movement of the water is called the *tide*. When the water rises we call it the *flow* of the tide, and when it falls, the *ebb*. When it has reached its highest point we say it is *high tide*. When is it *low tide?*

A lighthouse.

In many parts of the ocean there are *currents* that move through the water as rivers move on the land. Some of these are cold currents, coming from the frozen polar regions, and others are currents whose waters have been warmed where the sun's rays are hottest. These currents warm or cool the winds that blow over them, and these winds, in turn, warm or cool the land when they reach it.

During the summer months, thousands of people go to the seashore to enjoy the cool ocean winds and the sea bathing. Here is a picture of a seaside bathing place. It is low tide, and the beach is covered with people. Some are in the water, and others are walking or driving on the sand.

Sea bathing.

Let us take a walk on the beach. The sand is wet and shining and as smooth as a floor. Here is a pretty shell. Inside of it is a tiny living creature. Here, also, are many empty shells and bunches of seaweed. Here is something that is shaped like a star. It is a starfish. It seems to be without life, but when we place it in the water it puffs up its back and moves off quietly. Here is a dried-up starfish. We will take this for our cabinet, along with a few shells and pebbles.

Notice the high tower in the picture. This is a *lighthouse*. Along many coasts there are hidden rocks, or banks of sand that rise nearly to the top of the sea. Such coasts are dangerous to vessels, and so tall buildings are put up, with strong lights at the top, which at night shine far out over the water. These tell the sailor of his danger and guide him safely.

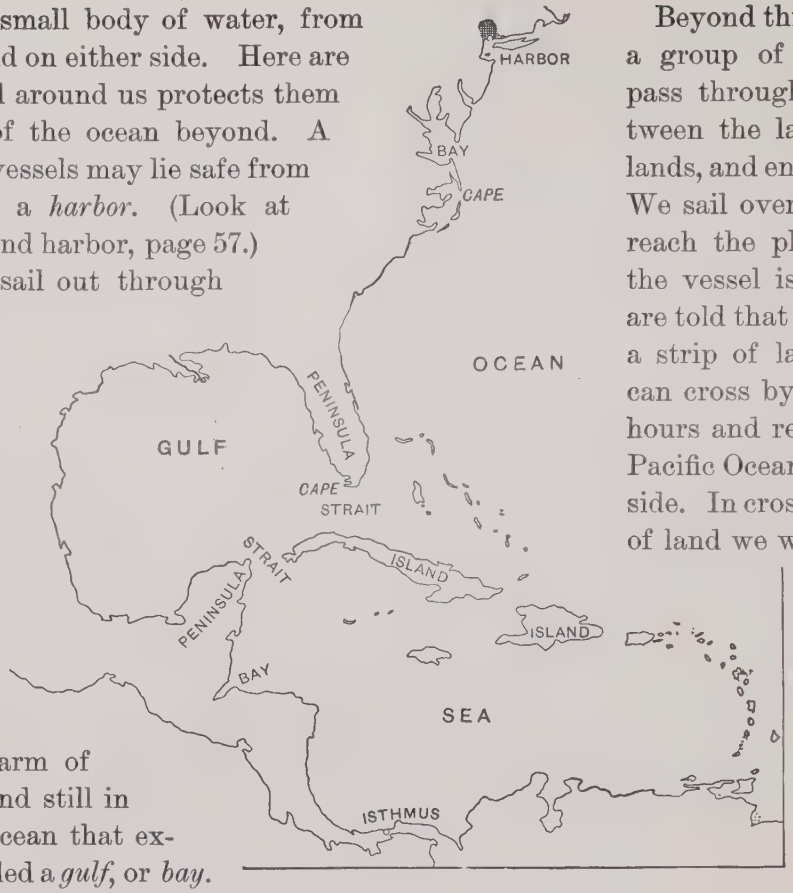
17. SHORE FORMS OF LAND AND SEA.

Let us make a journey on the ocean along the shores of our own country. We will take a steamer from its largest city. What is the largest city of our country?

We sail at first on a small body of water, from which we can see the land on either side. Here are many vessels. The land around us protects them from the heavy waves of the ocean beyond. A body of water in which vessels may lie safe from ocean storms is called a *harbor*. (Look at map of New York City and harbor, page 57.)

From the harbor we sail out through a narrow passage into a larger body of water. A narrow passage which thus connects two larger bodies of water is called a *strait*. Some long and wide straits are called *channels*. A strait or inlet of the sea whose water is not very deep is often called a *sound*.

We are now on an arm of the ocean, with the land still in sight. A part of the ocean that extends into the land is called a *gulf*, or *bay*.



Some gulfs, or bays, run far inland and have narrow entrances from the sea. Others are wide bends in the shores of the ocean. Some of the larger bays are called seas.

As we sail farther southward along the coast we pass two large bays. In a day or two we see some land which, we are told, is a large *peninsula*. The word peninsula means "almost an island." Why is this land called a peninsula? West of this peninsula is a very large gulf or bay; can you give its name? What is the difference between a peninsula and a bay? Find other peninsulas on the map.

This peninsula ends in a point of land called a *cape*. Some capes are low and sandy. They have been formed by the sand which has been carried by the waters of the ocean from other parts of the shore. On some rock-bound coasts there are high, bold, rocky capes. Capes of this kind are called *promontories*.

Beyond this peninsula is a group of islands. We pass through a strait between the largest two islands, and enter a wide sea. We sail over this sea and reach the place to which the vessel is bound. We are told that this city is on a strip of land which we can cross by rail in a few hours and reach the great Pacific Ocean on the other side. In crossing this strip of land we would cross an isthmus. An *isthmus* is a neck of land connecting two larger portions of land. What difference is there between an isthmus and a strait? Name the shore forms of the land. Of the sea.

Draw this map on your slate, and write on it the names of the different capes, straits, islands, etc. Your teacher will show you where to find these names.

TEST AND REVIEW QUESTIONS.

14. What is the branch of a river? A river basin? Why called basin? What is a river system? What separates river basins? What are rapids? What is the difference between a cascade and a cataract?

15. How has the form of the land been changed by running water? By the ocean? By winds? By other forces?

16. What causes ocean waves? How is chalk formed? What is the tide, and what is meant by its ebb and flow? What are ocean currents? Where do the warm ocean currents come from? The cold currents? How does the bed of the ocean compare with the land? If you have been at the seaside, write a story of what you saw there.

17. Of what use is a harbor? What is a gulf or bay? How do bays differ in size and shape? What is a strait? A sound? A channel? An isthmus? A peninsula? A cape? A promontory? Which of these have you seen?

THE WESTERN HEMISPHERE.

THE EASTERN HEMISPHERE.

18. CLIMATE, ZONES, AND SEASONS.

What kind of weather are we having to-day? What kind do the weather reports or the newspapers say we shall have to-morrow? In speaking of the kind of weather that we have generally, we call it *climate*. Thus we say that a country has a hot climate, a cold climate, a temperate climate, a moist climate, or a dry climate.

Upon that part of the earth around which the equator passes, the sun's rays fall most directly, and there is the hottest climate. Find the equator on the map above. Name the countries through which it passes. This hot region extends east and west around the earth like a belt. It is called the *hot belt*. It is also called the *Torrid Zone*, which means the same thing.

From either side of the hot belt the earth grows colder toward the poles. Next to the hot belt and on each side of it is a *warm belt*, beyond each warm belt is a *cool belt*, and beyond the cool belts are the *cold* polar regions. The climate of a country, therefore, depends very much on its distance from the equator.

Climate and products vary with the altitude.

High up in the air over every part of the world it is cold at all times. The tops of very high mountains are always covered with snow, and in plateau regions the climate is much cooler than in the low plains in the same belt.

Even in the hottest parts of the earth, when we go from the lowlands up to the highlands, we pass from a hot to a warm climate, then to a cool climate, and then to a cold

region, just as we would pass through the hot, warm, cool, and cold belts in going from the equator toward either pole.

The warm and the cool belts together form the temperate zones. North of the equator is the *North Temperate Zone*, and south of the equator is the *South Temperate Zone*. The region around the North Pole is called the *North Frigid Zone*, and that around the South Pole is called the *South Frigid Zone*. *Frigid* means "cold."

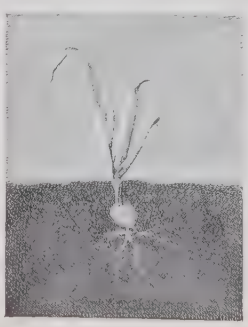
Our country is in the North Temperate Zone; that is, it lies across the warm and the cool belts north of the equator. Countries in these belts sometimes have very hot weather, but not so hot as it is in the Torrid Zone. Sometimes they have very cold weather, but not so cold as it is in the frigid zones. Taking the weather as it is throughout the year, we may say that our climate is *temperate*.

Write the name of the *season* of the year that we are now having. The name of the season that comes next. What season comes after that? After that? Why do our seasons change in this way? The change is caused by the earth's long journey around the sun.

You have learned that the earth makes a *rotation* on its axis once in twenty-four hours. It takes a whole year to make one *revolution* around the sun. Later you may learn how this causes a change of seasons.

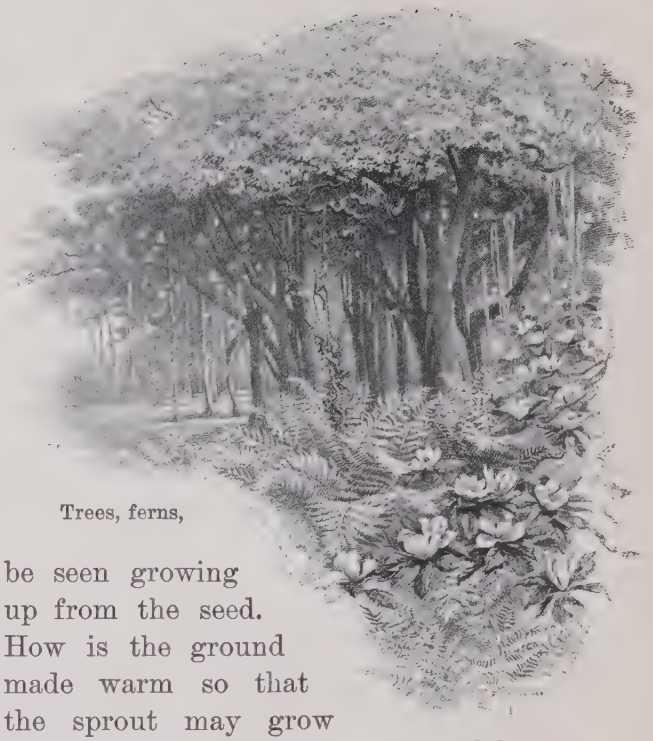
19. LIVING THINGS—PLANTS.

The most wonderful thing of all the earth is the life that is on it. Here is a grain of corn. Let us plant it. What does it need to make it grow? It needs moisture in the ground. How is the ground made moist so that corn and other plants may grow?



A growing plant.

After a time, if the ground is warm enough, a little shoot or sprout may



Trees, ferns, and flowers.

be seen growing up from the seed. How is the ground made warm so that the sprout may grow and become a living plant?

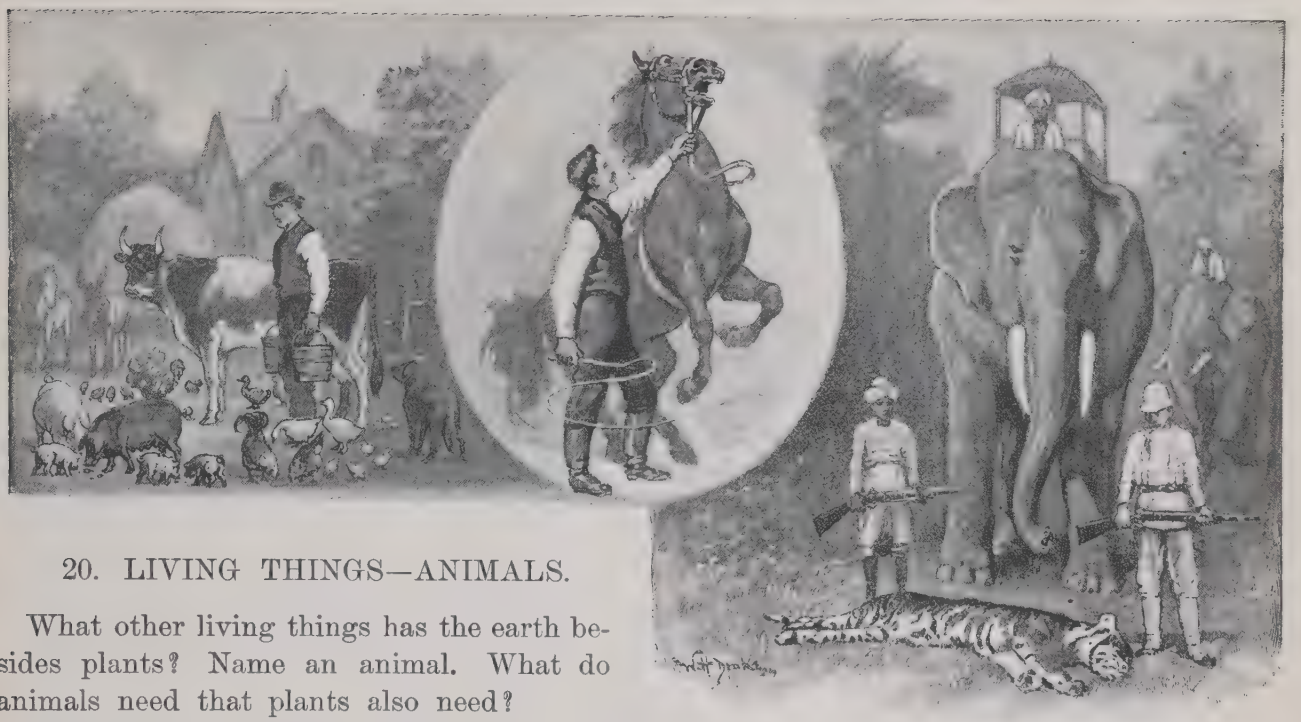
While the sprout is growing up, little roots are growing down from the seed in the ground. Now we have something that is alive. Plants are living things.

To live and grow, all plants must have food. This they get partly through their roots. They draw in water, which contains some food that they need. The water gets this food from the ground. Soil that is rich in plant food is said to be *fertile*.

As plants grow, they put forth leaves; through these leaves they take most of their food from the air. Could plants live if there were no air? Why?

Plants do not grow well without the light of the sun. How does a plant look that has been kept for some time in a dark cellar? Grass will not grow well in thick woods; what is the reason?

We see, then, that plant life needs soil, warmth, water, air, and light. Why are valleys better fitted for the growth of plants than are hilltops and mountains?



20. LIVING THINGS—ANIMALS.

What other living things has the earth besides plants? Name an animal. What do animals need that plants also need?

What use do animals make of air? Of water? Could they live without warmth? How is light useful to them? How do they take their food? Name some things that animals eat. Can you think of anything which animals eat that has never been alive?

Could there be animals if there were no plants? Why? What can animals do that plants cannot? Name the different ways in which animals move from place to place.

With what do animals see? Hear? Smell? Taste? Feel? Have plants any of these things? Tell us, then, how animals differ from plants. Which is the higher form of life—plant or animal?

All living things that are not plants are animals. Name animals that walk. That fly. That swim. That do all three. Name animals that crawl. What is the largest animal that you ever saw? The smallest?

Name an animal that eats plants only. One that eats flesh only. One that eats both plants and flesh. Name an animal with feathers. One with hair. One with scales. One covered with a shell. One that has no bones.

21. MAN.

We study geography that we may learn about the earth as the home of man. By man we mean the human race.

Of all life upon the earth man has the highest intelligence. All things can be adapted to his use, and by thinking he is able to use them.

Only man can dig iron, copper, and gold from the earth, and make things of them. Man alone plants seeds and raises crops; he alone makes and uses tools, and fashions and wears clothes; and he alone uses fire.

Many animals are stronger than man, but he makes them obey him and work for him. Many are swifter, but by railroads he can move faster than they. The weapons that he makes are more deadly than the teeth and claws of the fiercest beasts.

With the telescope man can see things that are far away. With the telephone he can talk with people at great distances. In many other ways the superior intelligence of man places him above the lower animals.

A black man.

22. RACES OF MEN.

As we walk along a city street we see that people are not alike in color. Most of those we meet are white. They are tall and well shaped, and have fine features and straight or wavy hair and beard. They are of the leading race in the world—the *white race*. The white race is known also as the Caucasian race.

Nearly all the people of Europe, America, Australia, southern Asia, and the northern and southern parts of Africa are of this race.

Here comes a man who is black. Notice his close, curling hair, his flat nose, and his thick lips. He is a Negro, and is of the *black race*. There are many Negroes in our country, but the home of the race is in Africa.

A white man.

Let us look through this window with its queer signs. Here are some odd-looking men at work ironing clothes. The color of these men is a sort of yellow, their eyes are set slantwise, and they have long, straight, black hair, and but little beard. They are of the *yellow race*, and come from a country in Asia called China, where there are many millions more like them.

A yellow man.

Here comes a band of tall, well-formed men, wrapped in blankets. They have coarse features and high cheek bones. Their long, black hair, like a horse's mane, hangs from their bare heads. Their skins are of a dark reddish color like copper. They are Indians on their way to visit the President. They are of the *red race*, which was once the only people in America.

A red man.

We will go down to where the ships are. Here are sailors from many distant lands. Some are white, some black, and some yellow. There are others somewhat like the yellow people, but their color is a light brown, and their eyes are not slanting. They are Malays from the islands southeast of Asia, and are of the *brown race*.

23. CONDITIONS OF MEN.

The first wants of man are food, clothing, and shelter, and he must work to get them. The lower animals also must hunt for food and shelter.

There are people who want but little more than beasts do. They dwell in caves, or in rude huts. Sometimes they raise a few vegetables, and own a few horses and cattle, but for the most part they eat such food, either plant or animal, as they find growing wild. Such people are called *savage*. Most of the people belonging to the black and the red races are savages.

A brown man.

There are other people who work for better shelter and better food than the savages do. These people wander about with their droves of horses, cattle, and sheep. They live in a rude manner, and have little or no learning. Such people are called *barbarous*.

As man improves, however, he wants more than mere food, clothing, and shelter. He wants

Civilization.

to own land for his flocks and herds, his crops and his houses. He learns to read and write. He dwells with his fellow-men in towns and cities. He has a rude love of splendor, yet some of his ways are low. People of this kind are called *half civilized*.

Savagery.

In some countries the people have higher wants. They delight in learning, and in all that can improve the mind. They have churches, schools, newspapers, books, pictures, and music. They have fine cities. They build railroads, steamboats, and telegraph lines. Such people are called *civilized*.

In the hot belt the heat makes man dislike work. He has but little need of clothing and shelter, and food is plentiful, so he need work but little. Most of the savage and barbarous tribes live in the hot belt.

In the cool belts the weather makes man active. He must work to provide food, warm clothing, and shelter. The people of the cool belts are more highly civilized than those of other parts of the earth.

24. GOVERNMENT.

Making rules or laws, and seeing that they are obeyed, is called *government*. The more that people live together in cities, towns, or countries, the more need they have of laws.

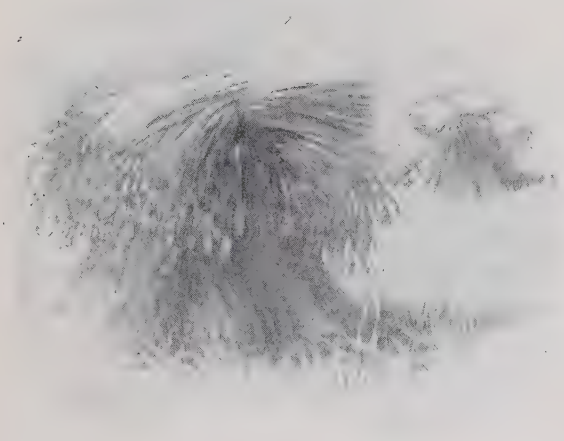
Savages, whose wants are few and who do but little work, have but little government. They obey the will of their strongest and bravest men, who are called *chiefs*.

In countries where people have made more progress there are rude forms of government. The laws are few and weak, but the rulers have great power. There are many such governments among the yellow and the brown races.

In civilized countries there are better governments. The laws are written, and are obeyed by the rulers as well as by the people. Most of these rulers hold office because they are the sons or the daughters of former rulers. Such governments are called *empires*, or *kingdoms*. The chief ruler of an empire is an *emperor* or an *empress*; of a kingdom, a *king* or a *queen*.

The form of government under which the people choose the persons who are to make and enforce their laws is called a *republic*. What form of government has our country? What is the chief officer called?

A people living under one government is called a *nation*. What is the name of our nation? The city in which a nation's laws are made is called a *capital*. What is the capital of our country?



Wheat.

25. THE EARTH A FARM.

The earth is the home of man. He also gets his living from it, and thus it is at the same time his home and his farm.

What does man raise on this great farm? He raises plants for food and plants for clothing. He raises animals also for food and for clothing. From the waters of the earth he gets fish for food, and from the forests wood for his houses. In this way his three great wants for food, clothing, and shelter are supplied.

Cotton.

Write the names of all the food plants that you can think of. Is flax a food plant? Cotton? Name a plant which is used only as food for animals. Write a list of fishes that are good for food. Write a list of trees from which boards are made. A list of trees that yield food.

There are regions in which plants will not grow. They will not grow in the cold regions around the poles, or on the high plateaus and mountain tops, where it is very cold. Neither will they grow in rough, rocky places where there is no soil, nor upon lands where no rain falls. These rainless regions are called *deserts.*

Where there is the most heat and moisture, there is the greatest growth of plants. Some plants will grow only in hot regions, and others only where it is not very warm. Where are the hot parts of the earth? Where are the belts that are neither very cold nor very hot?

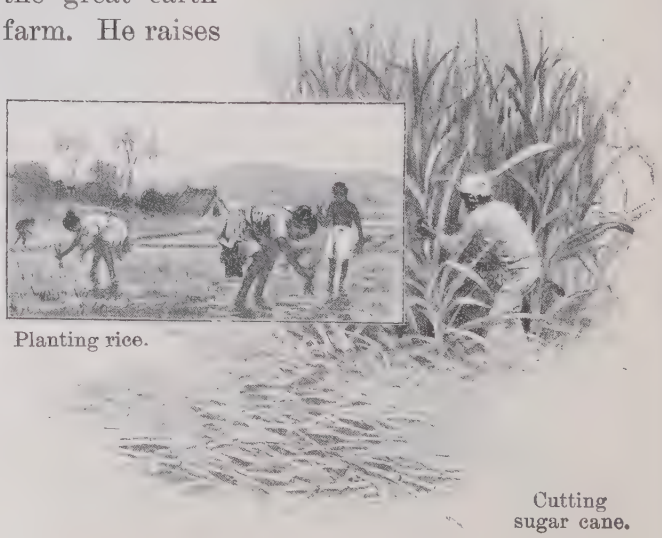
Man, the farmer, knows that wheat, corn, oats, rye, barley, potatoes, garden vegetables, apples, peaches, grapes, and other food plants, and grass with which he feeds his animals, and flax for clothing, grow best where it is not too warm—that is in the cool belt.

He knows also that rice, yams, bananas, breadfruit, cocoanuts, sugar cane, coffee, tea, oranges, lemons, pineapples, dates, figs, spices, and other food plants, and cotton for clothing, grow best in the warm and the hot belts. Write a list of all the spices that you know.

There are many plants useful to man which grow wild in the forests and fields. Among these are the rubber tree, the sugar maple tree, and other plants that yield gums and medicines. Plants that are raised by man are said to be *cultivated.*

Man raises animals as well as plants on the great earth farm. He raises

Planting rice.



Cutting sugar cane.

them not only for food and clothing, but also for the work they can do. Animals that are raised by man are called *domestic* animals.

Make a list of domestic animals. Which of them are for food? Which for clothing? Which for both food and clothing? Which for work only? Which for all three?

There are wild animals also in most parts of the earth. Some of these are fierce and dangerous, and prey upon weaker animals. Only a few of the wild animals of the earth have been domesticated. Many of them are useful to man for food and clothing.

Make a list of all the wild animals that you have seen; of all that you have read about. Which are useful for food? For clothing? Which are fierce and dangerous?

Many of the largest and most dangerous wild animals live in the hot regions. Among them are the lion, tiger, leopard, rhinoceros, hippopotamus, gorilla, alligator, and anaconda. The elephant, buffalo, and camel are the largest domestic animals of the hot belt. Elephants and buffaloes are also found wild.

The common domestic animals, such as dogs, horses, oxen, sheep, hogs, and fowls, are found wherever man has made his home. They thrive best, however, in the cool belts. The principal wild animals of these belts are the deer, panther, bear, and wolf.

In the cold regions the reindeer and the dog are the principal domestic animals. These regions are the home also of the white bear and the musk ox, and many small fur-bearing animals, and here millions of wild waterfowl come from warmer regions to rear their young. In the ocean waters of these regions are found the great whale, the seal, and the walrus.

From what animals do we get milk? Butter? Cheese? Eggs? Honey? Leather? Oil? Furs? Feathers? Beef? Pork? Lard? Hams? Mutton? Veal? Venison? Tallow? Ivory? These things are called *animal products.*

Herding cattle on the plains.

The raising of plants and animals on a farm is called *farming.* More than half the people of the earth are employed in farming. In some places vast herds of horses, cattle, and great droves of sheep are fed on the natural grass of the plains. The occupation arising from this is called *herding.*

TEST AND REVIEW QUESTIONS.

18. Name some different kinds of climate. Where is the hottest climate? The coldest? What belts are between these? Name all the zones. In what zone is the United States? How does the altitude of a place affect its climate? Name in order the seasons of the year. How long does it take the earth to make one revolution around the sun?

19. What does plant life need? How do plants get their food? When is soil said to be fertile? Of what use to a plant are its leaves?

21. What is the chief reason for studying geography? What things can man do which the lower animals cannot?

22. Where do we find most of the white race? What country is the home of the black race? Where do most of the yellow race live? The red race? The brown race?

23. What are the first needs of man? What kind of people are called savage? Barbarous? Half-civilized? Civilized? Why are the people of the cool belts the most highly civilized?

24. How are savage tribes generally governed? What are the principal forms of civilized governments? What are their rulers called? What is a republic? What is meant by a nation? A capital?

25. What three great needs of man does the earth supply? What are deserts? Name the chief plants of the cool belt. Of the warm and hot belts. What are cultivated plants? Domestic animals? What large wild animals are found in the hot belt? In the cool belt? In the cold belt? Name the principal domestic animals of each belt.

A coal mine.

26. THE EARTH A TREASURE-HOUSE.

Besides taking for his use such plants and animals as he wants, man goes down into the earth for treasures hidden away in the rocks.

There he finds iron, lead, zinc, copper, tin, silver, gold, and other *metals*. He finds also coal and salt, and many other useful things. The deep holes that he digs in search of the earth's treasures are called *mines*, and the products of mines are called *minerals*.

Most metals are found mixed with rock. Rock which contains metal is called *ore*. To separate the metal from the rock the ore in most cases must be melted.

Man has need of the rock itself with which to build his houses. He uses granite, marble, sandstone, slate, and limestone. The places where he takes out the rock are called *quarries*.

He bores down hundreds of feet through the solid rock in search of another treasure—a mineral oil called petroleum. In the same way he bores for natural gas. Salt water from which salt is made is often found by boring. These deep bored holes are called *wells*.

Diamonds, rubies, emeralds, and other precious stones are also found in the great earth treasure-house. What use do people make of them?

In all the grand divisions of the earth metals and minerals abound. Sometimes they are found in wide, thick beds, and sometimes in thin layers, or veins. Far down in the ground, and even out under the bottom of the sea, men are as busy in the mines as they are in the fields and forests on the surface.

27. THE EARTH A WORKSHOP.

To raise plants and animals, and to dig minerals from the earth, work must be done; and still more work is needed to fit these things for man's use. Hence the earth is a great workshop.

On land and sea, and far underground, men are always at work.

Take some wheat that has been raised by the farmer. What must be done to it before it can be eaten as food? What must be done to fit the ox for food? What work must be done on a log before it can be used in building a house? On a piece of iron ore before it can be used for a horseshoe? On cotton before it can be used as clothing?

The people who do the work are called *workmen*, and the places where they labor are called *workshops*. There are so many of these that we may think of the earth as a great workshop in the same way in which we thought of it as a great farm and as a great treasure-house.

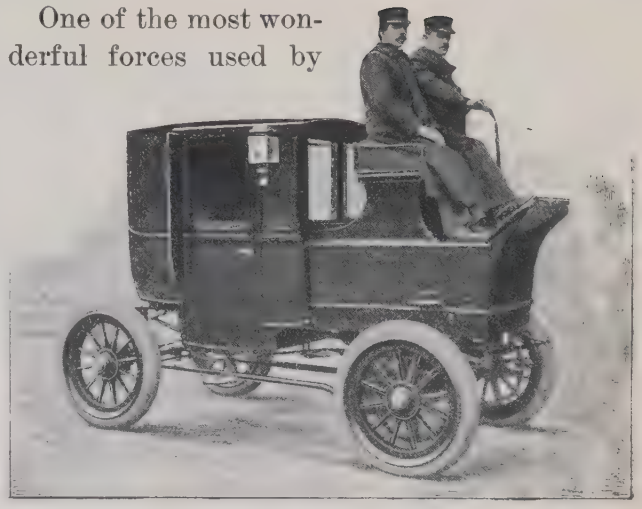
What is the workman called who raises crops? Who cuts down trees? Who catches fish? Who digs ore? Who makes flour? Bread? Cloth? Clothing? Leather? Houses of wood? Houses of brick or stone? Who kills animals for food?

Much of the work that is done in the shops of the world is done by machines. These grind grain, spin thread, weave cloth, saw logs, and do many other kinds of work. Write a list of the things you have seen done by machines.

Water power.

You have no doubt seen a waterfall and noticed with what force the stream poured down over the rocks. Men use water power to give motion to thousands of machines. Steam also works for man. Name some machines that you have seen worked by steam.

One of the most wonderful forces used by man to move the machines that help do the work of the world is electricity. Name something that moves by means of this force.



An electrical carriage — automobile.

Some of the great waterfalls of the world are now used to produce electricity. This force can be sent along wires to move machines that are miles distant. It can also be stored for use in moving cars and carriages.

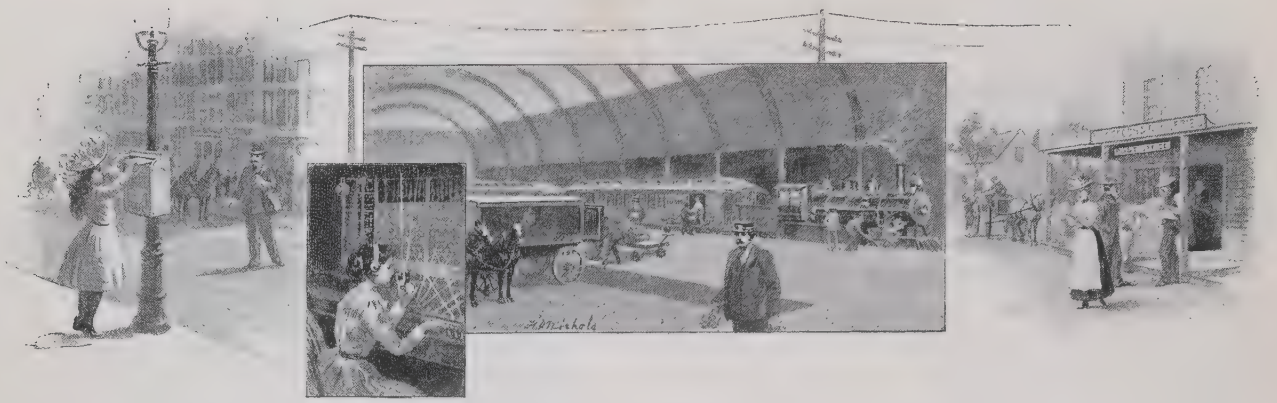
All the things that are made in the great earth workshop are called *manufactures*, and the making of them is called *manufacturing*.

28. MEANS OF COMMUNICATION.

When we make our thoughts known to other people we *communicate* with them. This can be done by talking or by signs when people are near each other, but when they are far apart some other way must be used.

Have you ever written a letter? How far did it go? How much did it cost you to send it? How long was it before you received an answer? A letter is one way of communicating with people at a distance.

Sometimes you may want to communicate very quickly with a person hundreds, or, it may be, thousands of miles away, and to get his reply at once. This you can do by means of the telegraph. Most of you have seen telegraph wires, and perhaps have seen messages sent.



Means of communication.

Wires have been laid on the bottom of the sea, and we can even send a message by telegraph from one continent to another. When we take up our newspaper at breakfast time we can read about things that happened the day before in nearly all parts of the world. The news comes to us by ocean telegraph.

A still more wonderful way of communicating with people is by telephone. Have you ever talked over a telephone? Persons hundreds of miles apart can talk with each other over the telephone as easily and as clearly as if they were face to face. These ways of communication are now so common that we are apt to forget how wonderful they really are.

29. TRANSPORTATION.

How are the goods which the merchant sells in our town carried from his store to the homes of the people who buy? What animals are used in this work? Name other animals used in transporting or carrying goods.

How are goods brought to our town from other parts of our country? What is a railroad? Some of the cities of our country are more than twenty-five hundred miles apart. They are all connected by railroads.

On these roads millions of people travel, and millions of tons of the products of farms, forests, mines, workshops, and fisheries are transported from one place to another.

Is your town on a lake or a river, or on the seacoast? What is a steamboat? How does it differ from a sailing vessel? On the rivers, lakes, and coast waters of our country thousands of steamboats and sailing vessels carry passengers and goods from one town to another.

A lake or a river on which vessels can sail is said to be *navigable*. Why are some rivers not navigable?

In some countries, where there are but few navigable rivers, long ditches have been dug, wide enough and deep enough, when filled with water, to float vessels. Such ditches are called *canals*. Some of them are hundreds of miles long. Canal boats are drawn by horses and mules.

In some parts of Asia and Africa goods and people are carried many hundreds of miles on the backs of horses and camels. A train of animals carrying burdens in this manner is called a *caravan*. In mountain regions mules are often used for carrying packs of goods. In South America a small animal called the llama is thus used.

In the cold regions that lie around the Arctic Ocean men travel over the snow fields on sledges. In some countries these sledges are drawn by reindeer. In other countries the sledges are drawn by dogs.

Commerce and transportation.

30. TRADE OR COMMERCE.

The farmer raises more grain than he can use. He sells what he does not need, and with the money buys things that he wants. It is the same with the miner, the weaver, the shoemaker, and all men who raise or make things. This selling and buying is called *trade*, or *commerce*.

Many men work at buying and selling goods. It is their business. These men are called traders, storekeepers, and merchants. Goods that are bought and sold are called *merchandise*.

Much trade or commerce is carried on in our country. How many kinds of stores or shops have you seen? Where does the flour come from that the grocer sells? The calico at the dry-goods store? The nails at the hardware store? The shoes at the shoe store? Most of the goods that are bought and sold in our country are produced by our own people.

There are many things, however, used by our people, that come from beyond the sea. Name some of them. What did you have for breakfast that was not raised in this country? You see that we have two kinds of commerce —one among our own people, called *domestic commerce;* the other with foreign countries, called *foreign commerce.*

The goods brought into our country are called *imports.* The goods that we send to other countries are called *exports.*

As trade or commerce employs many people in buying and selling goods, so it employs many others in their transportation.

TEST AND REVIEW QUESTIONS.

26. What are "treasures"? Why may the earth be called a "treasure-house"? What metals do we find in the earth? What other valuable things that are not metals? What is ore? What are mines? Quarries? What does man bore for in the earth? What are precious stones?

27. What is a "workshop"? Why may the earth be called a "workshop"? Why are men compelled to work? What race of men does the least work? Why? What helps man in his work? What forces does man use to make a machine work? What are manufactures? What is manufacturing?

28. How do people communicate with one another? Write or tell what is done with a letter from the time it is written until it reaches the person to whom it is sent. In what two ways may we communicate most quickly with persons at a long distance? How do these ways differ? How do we get news quickly from across the sea?

29. How are goods carried or transported from the store to our homes? How are they sent long distances in our own country? How are goods sent across the sea? What is a canal? A navigable lake or river? Name other ways by which men travel and transport goods.

30. Tell how trade or commerce first began. What do we call the men who follow this occupation? What is the difference between exports and imports? Between foreign and domestic commerce?

31. MAP OF THE WORLD.

As the earth is a globe, it is impossible to show accurately on a flat surface the whole outside of it in one view.

It is important, however, to have a general view of the earth's surface at one time, in order to show the relative positions of places, their true direction from one another, the belts of heat or cold in which they lie, and many other things. The most convenient arrangement for this purpose is that of the map of the world here given.

This map is drawn on what is called the *Mercator Projection*, from the name of its inventor. If the earth were a cylinder and the surface could be unrolled, it would spread out as here shown. What is a cylinder? Give a well-known example.

Take an orange to represent the earth. Consider the stem and the blossom ends as the two poles, and draw a line to represent the equator. Cut through the skin from pole to pole and remove it carefully in two sections. If you take one of these sections and cut through the skin in several places from the poles toward the equator, you can then flatten it out, and you will see that the parts near the poles take up much more space than they did before. The Mercator map does not give the true proportions as to size. This is to be noticed especially in the great land masses in the north, and the experiment just made will help you to see the reason. Try it. In many other ways, however, the advantages of the Mercator map more than make up for this defect.

Map Studies.—What continent is shown in the center of this map? (See page 11.) What are its two grand divisions? In which of these is our own country? What ocean is east of North America? What continent is beyond this ocean? Name its grand divisions. What ocean is west of our continent? What continents lie beyond this ocean? What ocean is west of Australia?

What grand division extends farthest south? In what cape does it end? Which extends farther south, Australia or Africa? What noted cape is at the southern end of Africa? Find Bering Strait. What continents does it separate? What strait is between Europe and Africa? Asia and Africa? Find the Suez Canal, and the partly completed Panama Canal. How can these benefit commerce?

On this map the United States and its possessions are

colored red or marked with a red line. What other country of North America belongs to the United States? Write a list of our island possessions. In what oceans are they? In what belt or zone are they? (See page 25.)

Find the great seaport of *London.* A seaport is a city or town to and from which seagoing vessels sail. Find *New York.* These two cities are the world's greatest centers of commerce. Tell on what waters and in what directions a steamer would sail on the following voyages: From London to New York for a cargo of flour and meat. From New York to Havana for sugar. To Para for rubber. To Manila by way of Cape Town for hemp. To Manila by way of Cape Horn. From San Francisco to Manila. From Liverpool to New Orleans for a cargo of cotton. *Other voyages may be suggested by the teacher.*

Find the equator. In what latitude are all places north of the equator? South? Between what degrees of latitude are most of the large cities of the world? What city of Asia has about the same latitude as New Orleans? What cities of Africa? What cities are south of the 30th degree of south latitude? In what latitude are the East Indies? The West Indies?

NORTH AMERICA.

32. POSITION—EXTENT—COAST LINE.

Look at the map of the world on pages 36 and 37, and notice the position of North America upon the earth's surface. What grand division can be reached by sailing east from North America? By sailing west? What oceans would be crossed? In what direction would we sail to reach Australia? On what ocean?

Is North America north or south of the equator? It extends from the hot belt across the warm and the cool belts into the cold region around the North Pole. In what zones does it lie? (See zone map, page 25.) It is the third of the grand divisions in size, Asia and Africa being larger. Our country is the most important part of North America. In what part of North America is it?

The landing of Columbus, 1492.

What is the general shape of North America? Has it an even or a broken coast line? Compare its coast line with that of South America, and tell how they differ. Do you think a broken coast line is an advantage to a country?

What ocean north of North America? Along the Arctic coast there are many islands. A sea filled with islands is called an *archipelago*. Find Greenland. What arm of the sea parts it from the mainland? In what cape does it end at the south? What strait joins Baffin Bay with the Atlantic Ocean? Find Iceland.

Find Newfoundland. What do you know about this island? What gulf lies west of it? What great bay lies farther inland? What strait joins Hudson Bay to the Atlantic Ocean? What peninsula do these waters inclose?

What group of islands southeast of the mainland of North America? What sea do they partly inclose? Between this sea and the Pacific Ocean is a noted isthmus. Name it. Find the Gulf of Mexico. What two peninsulas at the mouth of this gulf? What large island?

Cross the Isthmus of Panama and follow the Pacific coast toward the northwest: what long, narrow peninsula do you find? What gulf does it partly inclose? The northwestern part of North America is nearly surrounded by water. What body of land does it form? What is its name? What sea lies west of Alaska? What joins Bering Sea and the Arctic Ocean? What cape of North America extends into the narrowest part of Bering Strait?

33. SURFACE AND DRAINAGE.

What is a relief map? Look at the relief map of North America. Notice that some parts are darker in shade than others. This difference in shade is to show the difference in the altitude of the land, or its height above the sea level (see page 15). The darker in shade, the greater the altitude of the land.

Relief Map of NORTH AMERICA.—Same Scale as South America, Asia, Africa, and Australia.

What part of North America has the greatest altitude? This region is called the *Western Highland.* In what direction does this highland region extend? Where is the widest part of this highland? Its highest mountain ranges are called the *Rocky Mountains.* Find Mount McKinley. It is the highest mountain peak in North America.

Where is there another highland region in North America? Is its altitude as great as

The Rocky Mountains.

that of the Western Highland? How do you know? In what direction does this highland region extend? It is called the *Eastern Highland.* The mountain ranges that rise from this highland are called the *Appalachian Mountains.* What is the difference as shown in the pictures between the mountains of the Eastern Highland and of the Western Highland?

What kind of surface does the map show between the Eastern and the Western highlands? This broad extent of lowland reaching from the Arctic Ocean to the Gulf of Mexico is called the *Great Central Plain.* Notice that from about the middle of this plain the rivers flow in opposite directions, north and south. What does this prove? What is a divide? The divide between the sources of the rivers that flow northward, and those that flow southward, is a low swell of land called the *Height of Land* that crosses the Great Central Plain from east to west. Trace it on the map.

The Appalachian Mountains.

Between the Eastern Highland and the Atlantic Ocean notice another plain, narrow at the north and widening toward the south, where it joins the Great Central Plain. This is the *Atlantic Coast Plain.* On this plain are many large cities.

Read about river basins (page 20). Where do you find the largest river basin in North America? What river drains this basin? Into what does it flow? Name its largest branch. Trace the Mississippi River to the mouth of the Missouri River, and from there to the source of the Missouri. This is the longest river in the world. Find the Mackenzie River. Into what does it flow? Is the Mississippi River useful to commerce? Why? The Mackenzie? Why?

Find the Great Lakes. Give the name of each. What large river flows from these lakes? Into what body of water? Where do we find many other large lakes? What ocean do their

waters reach? What large river flows into Bering Sea? What do you know about this river? Find the Columbia River. The Colorado. The Saskatchewan. Into what does each flow?

34. RESOURCES AND PRODUCTS.

Ask your teacher to put a dot on the map of North America to show where you live. Do you live in the northern or the southern part? In the eastern or western part? In what direction from you is the nearest ocean? Think of a journey over your grand division, starting from your home. The map will aid you in this.

We will suppose it is summer time. Your journey will be to the north. North is toward what? As we go north, does the weather grow colder or warmer?

On your way north, you see at first many farms with orchards and grainfields. You pass through forests of maple, oak, chestnut, walnut, and pine. As you go on, the weather grows colder and colder, and after a while you come to snow and ice. Still farther north, you reach a region where there are no trees, but only a few bushes, mosses, and lichens.

Musk ox attacked by wolves.

In your journey through the cold regions, you may find the wolf, the fox, the white bear, the musk ox, the otter, the beaver, and other fur-bearing animals. In the ocean waters you

A seal rookery.

may see the seal, the walrus, and the whale. You may see many waterfowl. Why do people wear thick underclothes and overcoats when they go to the far north? For the same reason these animals of the north wear a thick covering of fur or feathers.

The whale and the walrus are kept warm by a thick layer of fat just inside the skin.

Can you think of any people who want fine furs? In our own country it is not cold enough for animals to wear such thick, soft, warm furs as they do in colder regions. We get our furs by commerce. A few people live in the cold regions, and catch animals for their fur. They send us the skins, and get from us, in exchange, food, clothes, guns, and other things which they want.

Now journey south from your home. You follow the same meridian, but in a direction opposite to north. In your journey south, do you go toward a warmer or a colder part of North America? You find more plant life as you go toward the warmer part of the earth. Why?

You pass many forests, and fields of tobacco, cotton, and sugar cane. In the lowlands, you see rice growing. You see oranges, figs, cocoa-

A swamp in the warm belt.

nuts, bananas, and other fruits and plants of the warm belt. There are alligators in the streams. What great arm of the sea do you find at the south? Of what ocean is it a part? If you cross the Gulf of Mexico you will come to a country where there are many thick forests. In these forests the mahogany tree grows, and here are found the fierce beast of prey called the jaguar, and thousands of monkeys and parrots.

Millions of people live in the cool belt of North America. They want the things that grow in the south. Other millions live in the south, who want the things that grow in the north or are made there. Think of all the goods that must be carried north and south. How is the carrying done on the land? On the rivers and along the coast?

Where on the map of North America do you look for the North Pole? You have learned that when you face the north, the east is at your right, and the west is at your left.

Journey eastward by the map from your home until you reach the ocean. What ocean is this? It is the great highway of commerce between America and Europe. Many of the largest manufacturing and commercial cities are in the east. There are important fisheries in the river and ocean waters. Near the island of Newfoundland are the banks or shallow places in the sea where great numbers of codfish are caught. Find the Grand Banks.

Now face to the west, and travel across the continent. In what way could you best make the real journey? Could you go from the far north to the far south as easily? Why? What highland region would you first cross in your journey west?

The American eagle.

In many parts of this region are mines of coal and iron which supply thousands of factories. Here, too, are petroleum, natural gas, and salt wells. A few wild animals, such as the deer, the black bear, the eagle, and the wild turkey, are still to be found among the mountains. As the country has become thickly settled the wild animals have become fewer in number.

The bison or buffalo.

Beyond the Eastern Highland we come to the great food-producing region of North America. What is it called? Here are great fields of wheat, corn, oats, rye, and barley, and here, too, flax is grown. In the region around the Great Lakes are mines of iron, copper, and lead.

As you go westward over the Central Plain you may see many manufacturing cities, but not so many as in the east. Farther west you may see vast numbers of cattle, sheep, and hogs. Not many years ago there were millions of bisons, or buffaloes, throughout this region, but they are all gone, and their place has been taken by the animals raised by man.

Grizzly bears.

At length you reach the Western Highland. Here are the richest mines of gold and silver in the world. There are also much copper and lead. Here, too, are found some of the largest and fiercest wild animals of North America. The grizzly bear, the cougar, or mountain lion, and the wolf are native to this region, and in its wildest parts are found also the elk, the deer, and the beaver.

You descend the western slope of this highland region, and reach another ocean. What is this ocean called? On the Pacific slope of the Western Highland are many dense forests in which grow some of the largest trees in the world. You do not find so much commerce here as on the eastern coast. This is because there are but few good harbors and not so many people on the western coast.

One of the largest trees in the world.

In the northwestern rivers great numbers of salmon are caught. Near Alaska are the islands from which we get most of the seal fur that is used for clothing.

35. PEOPLE AND COUNTRIES.

The first white people who visited America came from Europe. They found here a strange people whose skins were of a reddish color. Thinking at first that this new country was India, they called the natives Indians. This name was afterwards given to all the natives of the *New World*, as it was called.

In time, North America, as far as it had become known, was divided among the English, the French, and the Spanish. The English took the middle part, the French took the northern part, and the Spanish the south.

Some of the Indians have become civilized.

The Indians who once owned the whole country were slowly driven by the white race to the far west. They are few in number as compared with the white people. Some of them have been civilized and own houses and farms. Others lead a savage life.

Nearly one hundred and fifty years ago, the English took from the French their possessions in North America. Later, the English lost the best part of their possessions. How? The Spanish, too, from time to time lost portions of what they owned, until it was all gone.

Map Studies.—What country occupies the central part of North America? What country joins the United States on the north? On the southwest? What country northwest of Canada? To whom does it belong? What country southeast of Mexico? What island group southeast of the United States?

What zone lies between the Tropic of Cancer and the Arctic Circle? What countries of North America are wholly or partly in this zone? What zone north? What countries are partly in this zone? What zone south? What countries are wholly or partly in this zone?

Of the many millions of people who now live in North America, by far the greater part are of the white race. For hundreds of years people of this race have been coming here from all parts of Europe. We find men of the white race in the workshops, the mines, the forests, the fisheries, and on the farms, and they have carried our trade to nearly every part of the earth.

Eskimo turf huts.

There are also several millions of black people in North America. They live chiefly in the warm belt of our country, among the whites. Most of them work at farming. Nearly three hundred years ago the first negroes were brought here from their homes in Africa.

In the far, frozen north are found people of the yellow race, called Eskimos. They wear thick furs, and the men and women dress much alike. They live in rude huts, sometimes built of snow and ice, and eat wild animals, fish, and the fat, or blubber, of the whale, seal, and walrus. They train teams of dogs to draw their sledges. These people seem to be happy and contented in a country where few would wish to live. There are some other people of the yellow race in North America. They are visitors from Asia, who intend to return to that country. What are they called?

Look again at Greenland and Iceland on the map. They belong to a kingdom in Europe called Denmark, and are known as *Danish America.* Find the *Dominion of Canada.* It belongs to the English. In what part of North America is the *United States?* Find *Alaska.* It belongs to the United States.

Find *Mexico* and *Central America.* These countries form the southern part of the mainland of North America. East of these is the island division of the *West Indies.* These countries and islands once belonged to Spain, and the people still speak the Spanish language.

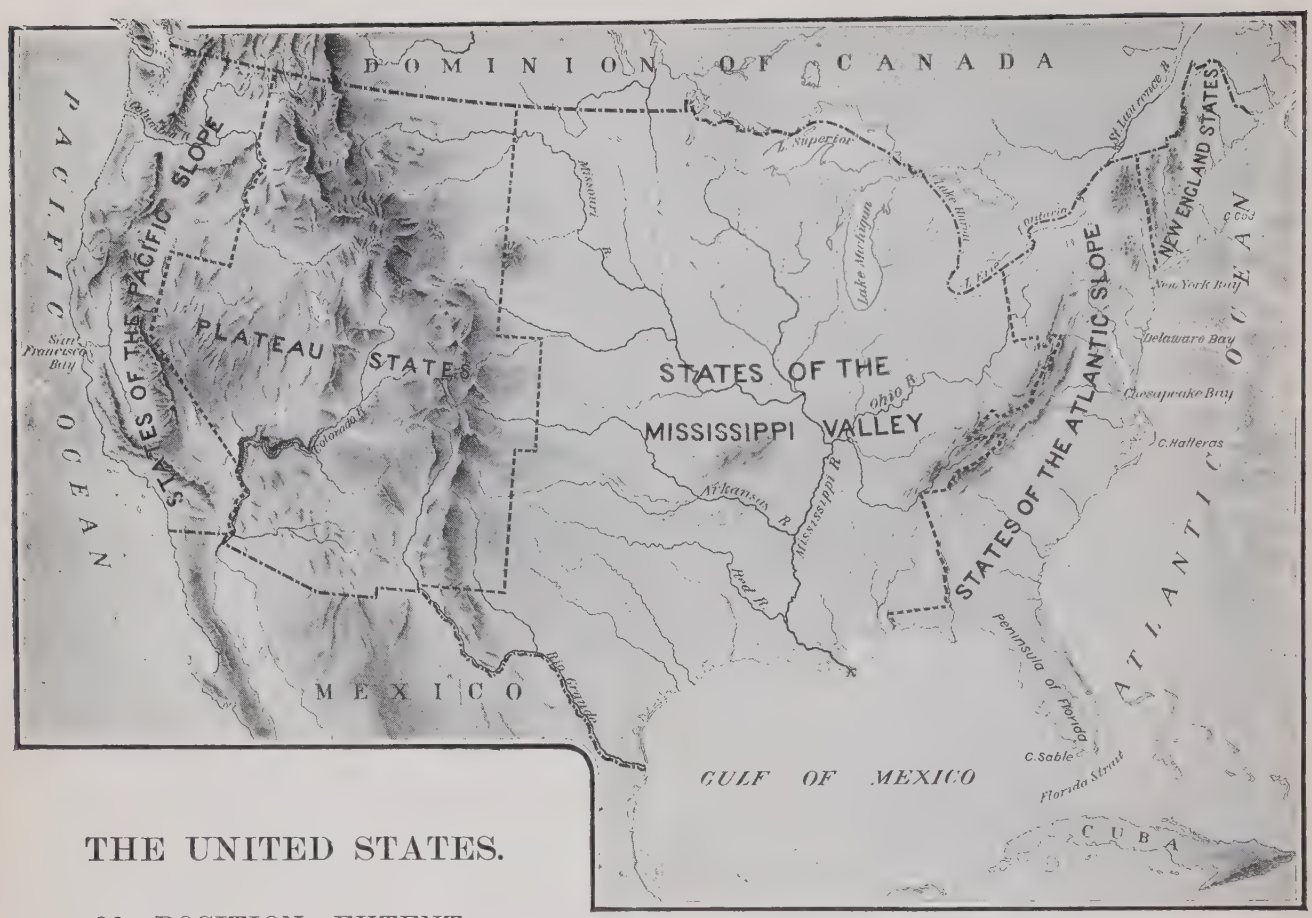
TEST AND REVIEW QUESTIONS.

32. Is North America in the Eastern or the Western Hemisphere? Is it in north or in south latitude? How do you know? By what oceans is it surrounded? On which of these oceans does the greatest number of vessels sail? Why? On which the least? Why? Compare North America in size with other grand divisions. Has it an even or a broken coast line? What two large arms of the sea extend into the mainland? What are the principal islands and groups near the mainland? What is an archipelago? Where is the hottest part of North America? The coldest? What is the climate between these extremes?

33. What is meant by altitude? How does a relief map show difference in altitude? In what part of North America do we find the greatest altitude? What is this region called? What are its principal mountain systems? What lower elevation in the east? What mountain system? What section lies between these highland regions? What large river drains a part of the Great Central Plain into the Gulf of Mexico? Into the Arctic Ocean? Into the Gulf of St. Lawrence from the Great Lakes? What rivers drain the Western Highland into the Pacific Ocean? Which is the most important of all the rivers of North America? Why?

34. What kinds of trees do you find near your home? What grains do the farmers raise? What fruits? What wild animals are there? What domestic animals? What have you learned about the plants of the far north? Of the animals? For what are these animals chiefly valuable? What plants and fruits grow best in the south? What metals and minerals are abundant in the Eastern Highland? In the Western Highland? Where is the most manufacturing done? Where are the most important fisheries? Where is the most herding done? In what part of North America are the largest and most ferocious wild beasts found?

35. What three nations once owned the greater part of North America? What part does England now own? What became of the French possessions? Of the Spanish possessions? Of what race are most of the people of North America? Where do we find most of the negroes? Of the Indians? What is the condition of the Indians of North America? What people of the yellow race live in North America? Name all the countries of North America. Which is the most important? Along what ocean are the most seaports? What ocean has none? Why? Where are the most people?



Relief map of the United States.

THE UNITED STATES.

36. POSITION—EXTENT—COAST LINE.

The United States occupies the central part of North America. It lies across the warm and the cool belts north of the equator. In what zone, then, is it? What part of it is in the warm belt? In the cool belt?

Tell by the map which of the coast lines is the most broken. Where, then, are the most good harbors? Find Massachusetts Bay, New York Bay, Delaware Bay, and Chesapeake Bay. Of what ocean are they arms? Find San Francisco Bay. Of what ocean is it an arm? What lakes between the United States and Canada?

Find Cape Cod. Cape May. Cape Hatteras. What cape at the southern end of Florida? What natural division of land is Florida? What large island south of it? Find Cape Mendocino. Into what ocean does it extend?

37. SURFACE, RAINFALL, AND DRAINAGE.

In what part of the United States is the main highland region? What is it called? Where is the lower highland region? What is it called?

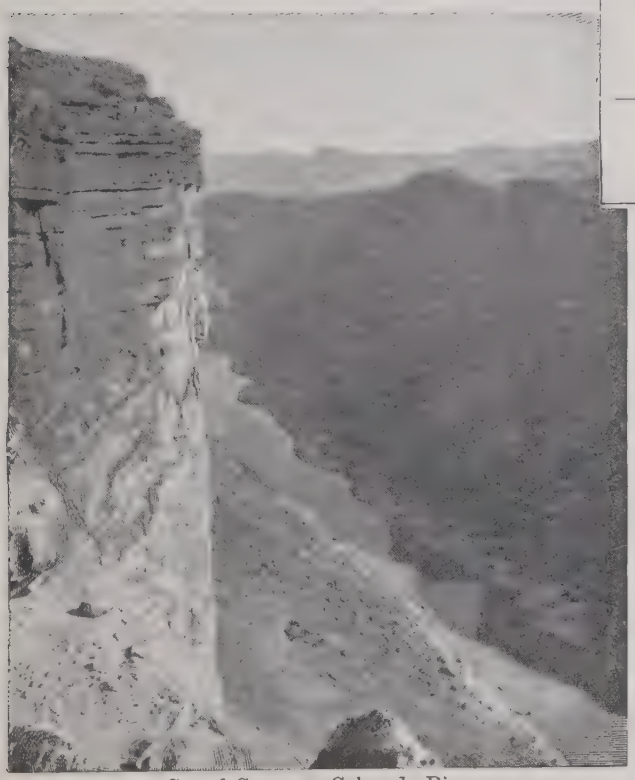
The slope from the Eastern Highland to the ocean is not very steep. In the north, the edge of this highland reaches the coast, which is therefore bold and rocky. South of Long Island, the slope widens out into the Atlantic Coast Plain. The shores of this plain are low and sandy.

The Atlantic slope and plain are crossed by many small, navigable rivers. Find the Hudson River. The Delaware. The Potomac. The James. In the steeper parts of the slope, the rivers supply much water power.

Between the two great highlands lies a wide valley, called the Mississippi Basin. Why? Find where the Atlantic Plain joins the Mississippi Basin. Name the largest eastern branch of the Mississippi River. The largest three western branches. What large boundary river drains the southwestern part of the Mississippi Valley? Through what river do the waters of the Great Lakes reach the ocean?

For hundreds of miles east and west of the Mississippi River, there are wide prairies. Beyond the Mississippi, the ground rises in a long gentle slope to the Rocky Mountains. A broad strip of flat country east of these mountains, in some places a mile above the level of the sea, is called "The Plains."

The Pacific slope of the Western Highland is much steeper than the Atlantic slope of the Eastern Highland. The ranges of mountains near the Pacific are sometimes called the *Pacific System*. Find the valley of the Columbia River.



Grand Canyon—Colorado River.

There is a large inland basin in the Western Highland that does not drain into any ocean. Its rivers empty into lakes which have no outlet to the sea. The water of these lakes, and of all others that have no outlets, evaporates rapidly, leaving behind the salt that is washed from the soil and carried into them by the streams. Hence such lakes become very salt.

Find the Colorado River. On its way from the highland to the sea, this river flows in places through long, deep channels called *canyons*, whose sides are sometimes a mile in height. The Columbia River is a very large river which has also cut its way through the mountains. The scenery along both of these rivers is wonderfully grand and beautiful.

Here is a map which shows the rainfall of our country. The darker the shading, the heavier is the rainfall. Notice that the eastern half of the United States has much more rain than the western half. The warm, moist winds from the Gulf of Mexico and the Caribbean Sea sweep northward and bring this rain. You know that plants thrive best where they can have warmth, moisture, and good soil. All these are found in the eastern half of our country.

The rainfall map shows also that the high plains east of the Rocky Mountains are very dry. Their soil is rich in plant food, and the climate is good, although cooler than that of the low-

lands in the same belt, yet there is very little plant life. There are a thin growth of grass, some sagebrush, and a few trees along the banks of the streams.

Let us find the reason for this lack of rain. The winds that blow over the Western Highland from the Pacific Ocean reach the land with plenty of moisture, but when they strike the steep slopes, a few miles inland, they are forced up into cooler air and become chilled. The rain falls on the western slope, but the winds that pass over the mountains have little moisture left.

If there were no high mountains in the way of the moisture from the Pacific, the heavy rainfall on the western slopes would be spread over what is now the great dry region of our country. Then our farming land would be nearly twice as extensive as it is now.

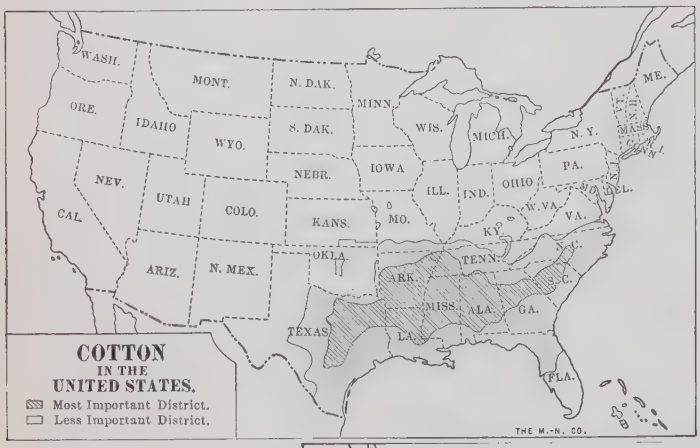
The streams that cross the dry plains east of the Rocky Mountains are fed by the melting snow on the high mountain ranges. People dig ditches, sometimes many miles in length, and turn the water of these streams into them. At the proper times this water is allowed to run out of the ditches over the land, taking the place of rainfall. Watering the soil in this way is called *irrigation.* (See picture of irrigation on page 68.)

Map Studies.—Which is the largest state in the Union? Which has the greatest extent of seacoast? Of lake coast? What states are wholly or partly peninsular? Which state is bordered by the greatest number of other states? What states border on the Atlantic Ocean? On the Pacific? On the Great Lakes? On the Gulf of Mexico? What states border on Mexico? Name the states along the northern frontier. Which is the most eastern state? Western? Northern? Southern? What states border on the Mississippi River? On the Missouri River?

UNITED STATES.
Capitals of Countries thus: ◎ Capitals of States thus: ★
Scale of Miles.
0 100 200 300 400 500
250 MILES TO ONE INCH.
100° Longitude West 95° from Greenwich 90° 85° 80° 75° 70°
90° Longitude West from Greenwich 85° 80°
95°
45°
40°
35°
30°
25°
20°
CANADA
Lake Winnipeg
Albany R.
Winnipeg
Lake of the Woods
Red R.
DAKOTA
Bismarck
Fargo
Duluth
Superior
Lake Superior
MINNESOTA
Minneapolis
St. Paul
WISCONSIN
Mississippi R.
Sioux Falls
Madison
Milwaukee
Lake Michigan
Grand Rapids
Lansing
Detroit
Lake Huron
Toronto
L. Ontario
Ottawa R.
Ottawa
Montreal
St. Lawrence R.
Quebec
St. John R.
MAINE
Augusta
Portland
Burlington
Montpelier
VERMONT
NEW HAMPSHIRE
Concord
Manchester
Boston
Massachusetts Bay
C. Cod
Worcester
MASS.
Providence
R. I.
Hartford
Connecticut R.
New Haven
Newport
Hudson R.
Rochester
Buffalo
Albany
NEW YORK
Lake Erie
Niagara R.
Delaware R.
Sioux City
Dubuque
Missouri R.
IOWA
Des Moines
Chicago
Toledo
Cleveland
OHIO
Wheeling
Pittsburgh
Harrisburg
Philadelphia
Trenton
Newark
New York
New York Bay
NEW JERSEY
Wilmington
Baltimore
Annapolis
Washington
C. May
Delaware Bay
Omaha
Lincoln
Platte R.
Peoria
ILLINOIS
Springfield
INDIANA
Indianapolis
Columbus
Cincinnati
WEST VIRGINIA
Charleston
Kansas City
Topeka
Kansas City
Jefferson City
St. Louis
Illinois R.
Wabash R.
Evansville
Frankfort
Louisville
Ohio R.
KENTUCKY
VIRGINIA
Richmond
James R.
Norfolk
Chesapeake Bay
Potomac R.
Cumberland R.
Tennessee R.
Nashville
TENNESSEE
Appalachian Mts.
Raleigh
NORTH CAROLINA
Charlotte
C. Hatteras
Oklahoma City
Arkansas R.
Memphis
Chattanooga
Wilmington
C. Fear
SOUTH CAROLINA
Columbia
Savannah R.
Atlanta
Charleston
ARKANSAS
Little Rock
Birmingham
ALABAMA
GEORGIA
Savannah
Dallas
Red R.
Sabine R.
Brazos R.
Austin
San Antonio
Mississippi R.
MISSISSIPPI
Meridian
Jackson
Vicksburg
Montgomery
Alabama R.
Mobile
Tallahassee
Jacksonville
LOUISIANA
Baton Rouge
New Orleans
Mobile Bay
Galveston Bay
Galveston
FLORIDA
C. Canaveral
ATLANTIC OCEAN
BAHAMA ISLANDS
Nassau
C. Sable
Key West
Florida Strait
GULF OF MEXICO
WEST INDIES
Havana
Matanzas
CUBA
Cienfuegos
Camaguey
Manzanillo
Santiago de Cuba
Yucatan
TROPIC OF CANCER

38. PEOPLE AND RESOURCES.

The position of our country, its soil and climate, and the character of its people, have all helped to make it one of the foremost nations of the world.



There are in the United States and its possessions over one hundred millions of people. Most of these are of the white race. The negroes number more than ten millions, and there are several millions of Malays and mixed races, together with a number of Indians and a few Chinese.

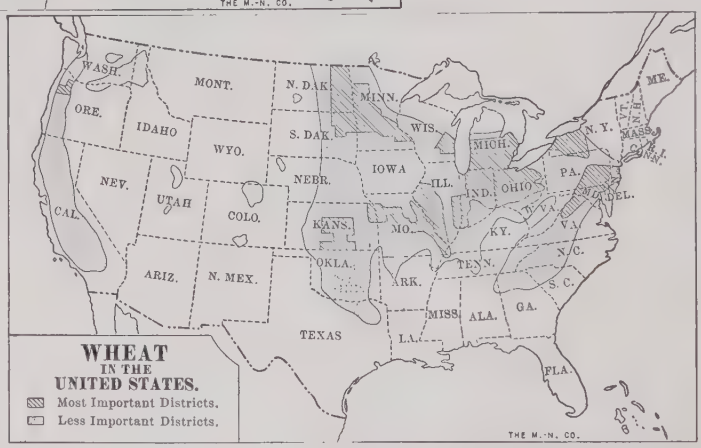
So much is offered by the earth to man in our country that people from all parts of Europe have come here to live. No doubt some of the pupils of your school have parents who came from beyond the sea.

The United States is a great *food-producing* country. Its grainfields, cattle ranges, and fisheries feed not only our own people, but also a great part of the people of Europe.

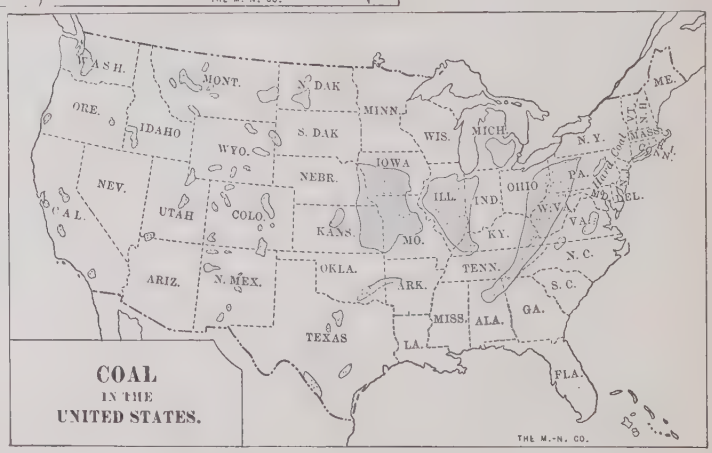
The United States is a great *mining* country. The rich gold, silver, copper, lead, and coal mines of the Western Highland, the coal and iron of the Eastern Highland, and the copper and iron of the Great Lake region, have added largely to its wealth.

The United States is a great *manufacturing* country. With its abundance of coal, iron, cotton, wool, lumber, and other materials, and the immense water power furnished by its streams, it is well fitted for making goods, and the products of its workshops and factories are sent to all parts of the world.

The United States is a great *lumber* country. When the white man first came here the greater part of the land was covered with forests. Many of these have been cleared away, but vast tracts remain that will supply lumber for years to come.



The United States is a great *commercial* country. With its navigable rivers, and lakes, its railroads, its canals, and its good harbors on two oceans, it can easily and cheaply send to the markets of the world the products of its farms, its herds, its mines, its factories, its forests, and its fisheries.



39. HISTORICAL AND POLITICAL.

You have learned that the eastern part of our country was settled by the English. There were in all thirteen colonies, which were ruled by England for more than one hundred and fifty years. But at length they became strong enough to manage their own affairs, and would no longer obey the unjust commands of the mother country.

On the fourth day of July, in the year 1776, the thirteen colonies declared themselves free from England. They afterwards *united* to make a nation, and that nation has ever since been called the United States. The English sent soldiers here and made war for several years against these colonies, but were at last defeated. Our nation has always been victorious in its wars.

Washington taking command of the American army.

The thirteen *original* states as they are called are New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, and Georgia.

From time to time new tracts of country have been acquired by the United States, until it now extends from the Atlantic Ocean to the Pacific. New states have been formed, until now there are forty-eight. There are also two territories which in time may become states.

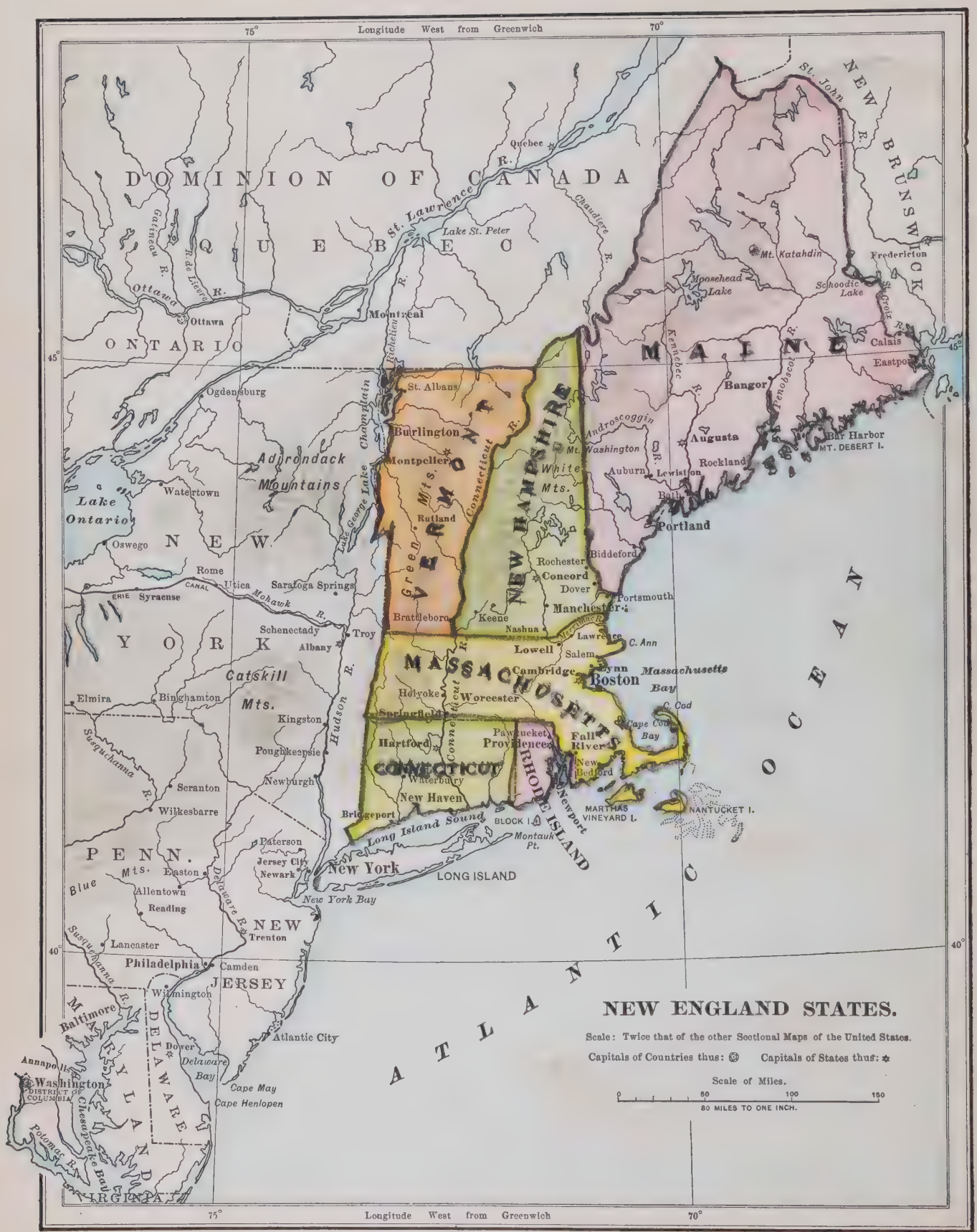
Alaska was bought from Russia in 1867. The Hawaiian Islands were added to the United States in 1898. Alaska and Hawaii are our two territories. The United States has other land in different parts of the world. After the Spanish-American War of 1898, Spain gave us the Philippine Islands and Porto Rico. What other island did Spain lose at that time?

The United States is governed by officers elected by the people, and is, therefore, a republic. Were you ever at an election? At what age are young men allowed to vote? The laws that are made by the states and by the nation must agree with the Constitution of the United States. Ask your teacher to tell you about the Constitution.

The United States makes laws to govern the nation, but each state makes the laws needed in its own affairs. What is the chief officer of a state called? Who is the governor of your own state, and when was he elected? The principal officers of the territories are appointed by the President of the United States. A territory may become a state when there are enough people.

Find the city of Washington, the capital of the United States. It is in a very small section called the District of Columbia. After whom was this city named? Write what you know about this great man. What city is the capital of your own state?

What is meant by the "Star-Spangled Banner"? The flag of our country has thirteen stripes, seven red and six white. These stand for the thirteen original states. In the blue field is one star for each state. How many stars are now on our flag? How many were on the first flag? A new star is added whenever a new state is made.


Longitude West from Greenwich
75°
70°
45°
40°
DOMINION OF CANADA
QUEBEC
ONTARIO
NEW BRUNSWICK
MAINE
St. John R.
Quebec
St. Lawrence R.
Lake St. Peter
Chaudiere R.
Gatineau R.
R. du Lievre
Ottawa R.
Ottawa
Montreal
Richelieu R.
Champlain
Lake George
Ogdensburg
Adirondack Mountains
Lake Ontario
Watertown
Oswego
NEW YORK
Rome
Utica
Saratoga Springs
ERIE CANAL
Syracuse
Mohawk R.
Schenectady
Troy
Albany
Catskill Mts.
Elmira
Binghamton
Kingston
Hudson R.
Susquehanna R.
Poughkeepsie
Newburgh
Scranton
Wilkesbarre
PENN.
Blue Mts.
Easton
Allentown
Reading
Lancaster
Philadelphia
Camden
NEW JERSEY
Wilmington
Delaware R.
Trenton
Paterson
Jersey City
Newark
New York
New York Bay
LONG ISLAND
Long Island Sound
Bridgeport
New Haven
Waterbury
CONNECTICUT
Hartford
Connecticut R.
Springfield
Holyoke
Worcester
MASSACHUSETTS
Brattleboro
Keene
Nashua
Manchester
Rochester
Concord
Dover
Portsmouth
Biddeford
Portland
Lawrence
Lowell
Salem
Cambridge
Boston
Lynn
Massachusetts Bay
C. Ann
C. Cod
Cape Cod Bay
Pawtucket
Providence
Fall River
New Bedford
RHODE ISLAND
Newport
BLOCK I.
Montauk Pt.
MARTHAS VINEYARD I.
NANTUCKET I.
Merrimac R.
Androscoggin R.
Augusta
Bangor
Bar Harbor
MT. DESERT I.
Rockland
Auburn
Lewiston
Bath
Kennebec R.
Penobscot R.
Eastport
Calais
Croix R.
Fredericton
Mt. Katahdin
Moosehead Lake
Schoodic Lake
Mt. Washington
White Mts.
Green Mts.
VERMONT
St. Albans
Burlington
Montpelier
Rutland
Connecticut R.
Delaware Bay
Cape May
Cape Henlopen
Atlantic City
Dover
Annapolis
Baltimore
Washington
DISTRICT OF COLUMBIA
MARYLAND
DELAWARE
Chesapeake Bay
Potomac R.
VIRGINIA
ATLANTIC OCEAN
NEW ENGLAND STATES.
Scale: Twice that of the other Sectional Maps of the United States.
Capitals of Countries thus: ◎ Capitals of States thus: ✡
Scale of Miles.
0 50 100 150
80 MILES TO ONE INCH.

40. SECTIONS.

A study of the surface of the United States from the relief map on page 46 shows that the states may be naturally grouped together into the following sections:

1. The New England States.
2. The States of the Atlantic Slope.
3. The States of the Mississippi Valley.
4. The Plateau States.
5. The States of the Pacific Slope.

A New England manufacturing town.

41. THE NEW ENGLAND STATES.

Maine (Me.)	Massachusetts (Mass.)
New Hampshire (N. H.)	Rhode Island (R. I.)
Vermont (Vt.)	Connecticut (Conn.)

Map Studies.—In what part of the United States is New England? Name the New England States. This section contains the smallest state in the Union. Name it. What do you notice in regard to the coast line of New England? Which state has no seacoast? Which is the longest river in New England? The largest lake? What bays on the coast of Massachusetts? What capes? What islands along the southern coast of New England? What arm of the sea? What mountains in Vermont? In New Hampshire? What noted peak in the White Mountains? To what system do these mountains belong? Compare the scale of this map with that of the other sectional maps.

Notice on the map on page 49 the other states that are in the same belt as New England. This is the cool belt of the United States. The climate of New England, however, is generally colder than that of the states farther inland. What is the reason for this?

New England is part of the Eastern Highland region. Much of the surface is therefore too rough for farming, but there are some smooth and fertile valleys. The abundant rainfall feeds many streams that furnish water power. For these reasons, and because it was not a good farming country, New England early became a manufacturing section. Only very few states in the Union make more goods than Massachusetts. Connecticut and Rhode Island are also noted for their manufactures.

Find the Merrimac River. It is said that this river moves more machinery than any other river in the United States.

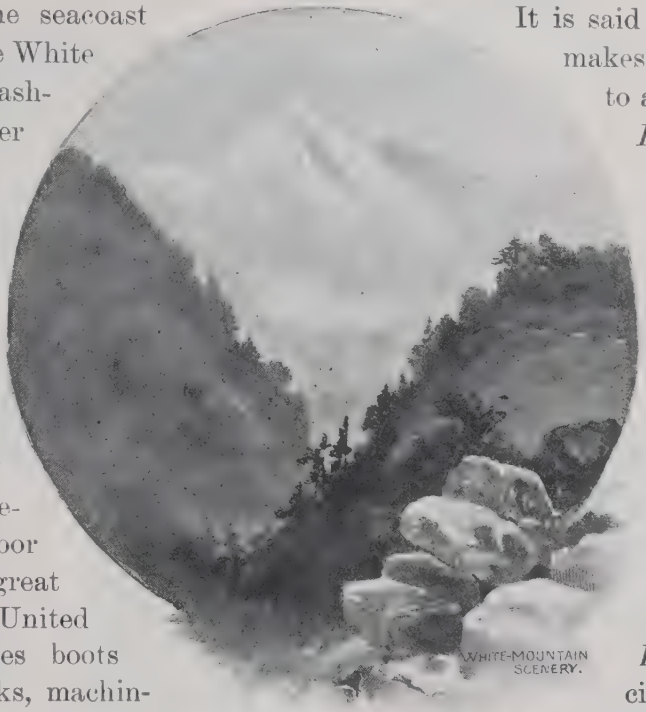
The factories of New England make many kinds of goods. Among them are cotton, woolen, and silk goods, boots and shoes, machinery, paper, brass, printed matter, packed meat, electrical supplies, leather, clothing, jewelry and silverware, rubber goods, automobiles, firearms, tools, and hundreds of other useful things. These manufactures are the chief exports. Write a list of what New England must import to run her factories and feed her people.

The great forest belt that extends westward from the Atlantic crosses this section. Most of the trees have been cut down, but in the north there is still much lumber. Maine is the great lumber state. Much of its timber is ground into wood pulp, which is used in making paper. In the ocean waters great quantities of codfish and mackerel are caught by the fishermen of Maine and Massachusetts.

New England is rich in building stones. Vermont, Maine, Massachusetts, and New Hampshire supply much granite. More marble is quarried in Vermont than in all the rest of the Union.

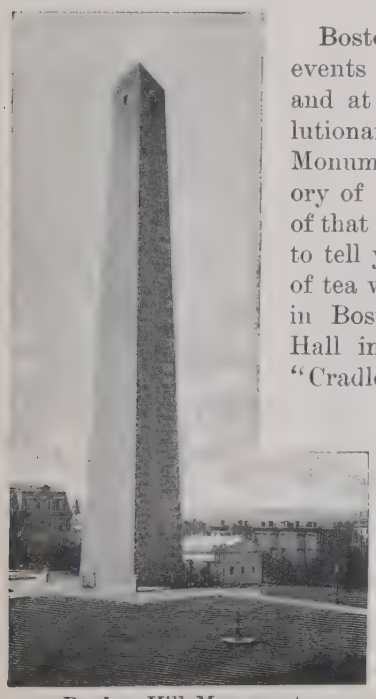
STATES OF THE
ATLANTIC SLOPE.
Same Scale as Maps of the States of the Mississippi Valley, the Plateau States and the States of the Pacific Slope.
Capital of United States thus: ...
Capitals of States thus: Canals:
Scale of Miles.
0 50 100 200
160 MILES TO ONE INCH.
85° 80° Longitude West from Greenwich 75° 70°
40° 35° 30°
LAKE MICHIGAN
LAKE HURON
LAKE ERIE
LAKE ONTARIO
ONTARIO
MICHIGAN
OHIO
PENNSYLVANIA
NEW YORK
NEW JERSEY
MARYLAND
DEL.
WEST VIRGINIA
VIRGINIA
KENTUCKY
TENNESSEE
NORTH CAROLINA
SOUTH CAROLINA
GEORGIA
ALABAMA
FLORIDA
VERMONT
NEW HAMPSHIRE
MAINE
MASSACHUSETTS
CONN.
Milwaukee
Chicago
Detroit
Cleveland
Toronto
Buffalo
Rochester
Syracuse
Albany
Troy
Utica
Oswego
Ogdensburg
Montpelier
Augusta
Concord
Boston
Providence
Hartford
Erie
Williamsport
Elmira
Binghamton
Catskill Mountains
Poughkeepsie
Newburgh
Seranton
Wilkes-Barre
Paterson
Jersey City
Newark
New York
Trenton
Long Island Sound
Montauk Pt.
LONG I.
Pittsburgh
Altoona
Reading
Harrisburg
Lancaster
Philadelphia
Camden
Wilmington
Baltimore
Annapolis
Washington
Alexandria
Dover
Cape May
Delaware Bay
Wheeling
Parkersburg
Cincinnati
Louisville
Huntington
Charleston
Frankfort
Richmond
Lynchburg
Petersburg
Roanoke
Newport News
Norfolk
Portsmouth
Cape Charles
Cape Henry
Chesapeake Bay
James R.
Danville
Nashville
Bowling Green
Paducah
Knoxville
Winston
Greensboro
Durham
Raleigh
Albemarle Sd.
Roanoke R.
Tar R.
Pamlico Sd.
C. Hatteras
Asheville
Mitchells Pk.
Chattanooga
Huntsville
Charlotte
Newbern
Spartanburg
Greenville
Cape Fear R.
Wilmington
C. Fear
Rome
Athens
Columbia
Sumter
Pedee R.
Birmingham
Atlanta
Augusta
Savannah R.
Santee R.
Charleston
Macon
Selma
Montgomery
Columbus
Beaufort
Savannah
Waycross
Brunswick
Mobile
Pensacola
Tallahassee
Jacksonville
St. Augustine
Apalachee Bay
Gainesville
St. Mary's R.
St. Johns R.
Suwannee R.
Ocmulgee R.
Flint R.
Chattahoochee R.
Apalachicola R.
Alabama R.
Tombigbee R.
Coosa R.
Tennessee R.
Cumberland R.
Green R.
Big Sandy R.
Kanawha R.
Ohio R.
Monongahela R.
Allegheny R.
Susquehanna R.
Delaware R.
Hudson R.
Connecticut R.
Lake St. Clair
St. Clair R.
Detroit R.
Niagara Falls
Niagara R.
Erie Canal
St. Lawrence R.
Champlain L.
L. George
Adirondack Mountains
Blue Ridge Mts.
Cumberland Mts.
Alleghany Mts.
Tampa
Tampa Bay
Lake Okeechobee
The Everglades
Miami
C. Canaveral
C. Sable
Key West
FLORIDA KEYS
DRY TORTUGAS
Florida Strait
GULF OF MEXICO
ATLANTIC OCEAN
BAHAMA ISLANDS
Longitude West from Greenwich 75°

There is much beautiful scenery in New England. Thousands of people from other states spend their summers among the mountains or along the seacoast of this section. Find the White Mountains. Mount Washington. Ask your teacher why New Hampshire is called the "Switzerland of America." Find the Green Mountains. How does Vermont derive its name from these mountains?



WHITE-MOUNTAIN SCENERY.

Find *Boston* on the map. It is the chief city of New England, and because of its fine, deep harbor has become one of the great commercial cities of the United States. It manufactures boots and shoes, clothing, books, machinery, and many other things. It is a great boot and shoe market, and has a large trade in fish. Boston is a noted literary center.



Bunker Hill Monument.

Boston is noted, too, for events that happened before and at the time of the Revolutionary War. Bunker Hill Monument was built in memory of one of the first battles of that war. Ask your teacher to tell you why the shiploads of tea were thrown overboard in Boston harbor. Faneuil Hall in Boston is called the "Cradle of Liberty." Why?

Find *Providence*. It is the second city of New England. Its great factories make cotton, woolen, iron, and steel goods, and much jewelry.

Worcester, the second city of Massachusetts, and *New Haven*, the largest city of Connecticut, are also important manufacturing centers. It is said of New Haven that "it makes everything from a pin to a steam engine."

Lowell, *Fall River*, and *New Bedford*, in Massachusetts; *Lewiston*, in Maine; and *Manchester*, the largest city in New Hampshire, are the great centers of cotton manufactures in New England.

Portland, the chief city of Maine, has one of the finest harbors in the United States. Ice and fish are the chief exports.

Burlington, the largest city of Vermont, is on Lake Champlain, a great water way of the forest belt. It has a large trade in lumber. Locate on the map all the cities named in the text. Find the capital of each state.

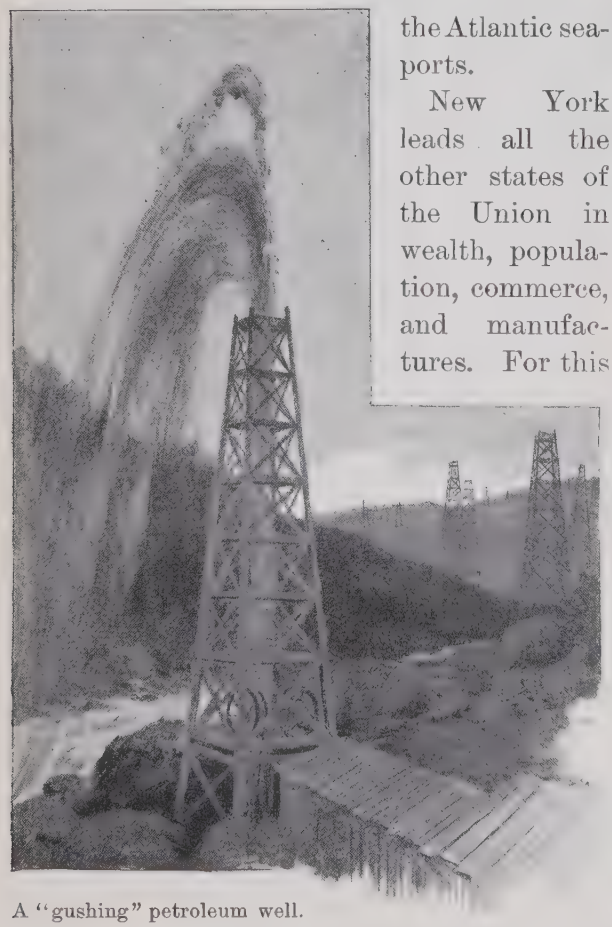
42 STATES OF THE ATLANTIC SLOPE.

New York (N. Y.)	Virginia (Va.)
New Jersey (N. J.)	North Carolina (N. C.)
Pennsylvania (Pa.)	South Carolina (S. C.)
Delaware (Del.)	Georgia (Ga.)
Maryland (Md.)	Florida (Fla.)

Map Studies.—In what part of the United States is this group? Name the states composing it. Which is the largest state? The smallest? The most northerly? The most southerly? Which has no seacoast? What two border on the Great Lakes? What bays indent the coast? What sounds? What rivers flow into these arms of the sea? Where is Long Island? Cape May? Cape Hatteras? Cape Sable? What mountain system crosses these states? Name its main ranges. What mountain groups are in the state of New York? Where is Niagara Falls?

The States of the Atlantic Slope lie in the cool and the warm belts of the United States. As they extend for more than a thousand miles north and south, we know that the climate of one part must differ from that of the other. Where is the warmest part of this group? The coolest? Why?

In the northern part of this section are vast beds of coal and iron, and rich wells of petroleum and natural gas. There are many fine farms also. Here, too, are great arms of the sea running far inland, and many good harbors. The chief railroads and canals of the United States cross this section, bringing the products of the West to the Atlantic seaports.



A "gushing" petroleum well.

New York leads all the other states of the Union in wealth, population, commerce, and manufactures. For this reason it is called the "Empire State." It is also a great farming state. Pennsylvania, too, has many fine farms, but the chief wealth of the state is in its coal, iron, and petroleum, and in its manufactures. More coal is mined and more iron and steel are made in Pennsylvania than in all the other states together.

Southern pine forest.

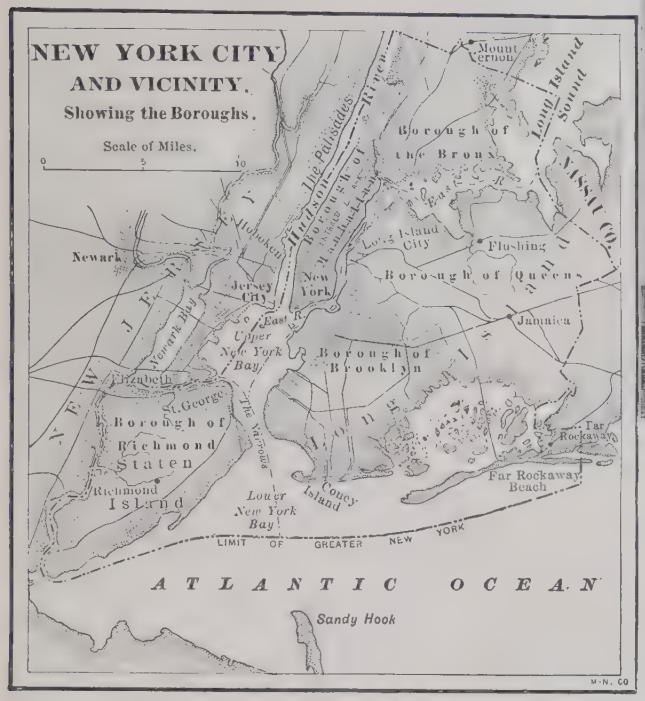
How turpentine is collected.

New Jersey has important manufactures. A great part of this state and of Delaware is devoted to raising fruits and vegetables for the large Eastern cities. Maryland is a farming and mining state. Chesapeake Bay, the great inland water way of Maryland and Virginia, is noted for its oysters and game.

Virginia is principally a farming state, and raises large quantities of tobacco and peanuts. South of Virginia is the cotton country. (See map, page 50.) In the coast regions of North Carolina, South Carolina, Georgia, and Florida there are extensive pine forests that yield rosin, tar, pitch, and turpentine — commonly known as "naval stores." Great fields of rice are found in the low coast lands.

Georgia is one of the leading states in the production of cotton and naval stores. It has ample water power and growing manufactures. Florida raises oranges, pineapples, and early vegetables in abundance for the Northern markets. Its mild climate makes this state a favorite winter resort for invalids.

The city of *New York* is the largest city and chief seaport of the United States, and is the second city of the world in population,



wealth, and commerce. It is connected by rail and by water with all parts of the Union. Vessels of all nations are found at its wharves. It is also a great manufacturing center.

The city of New York is located at the mouth of the Hudson River. It comprises Manhattan Island, and part of the mainland north, the whole of Staten Island, and the western end of Long Island, including Brooklyn. The East River between Manhattan and Long Island is crossed by four great bridges each more than a mile long. Manhattan Island is connected with New Jersey and Long Island by tunnels beneath the Hudson and East rivers. There are now about five millions of people in this great city. Only four *states* have a greater population.

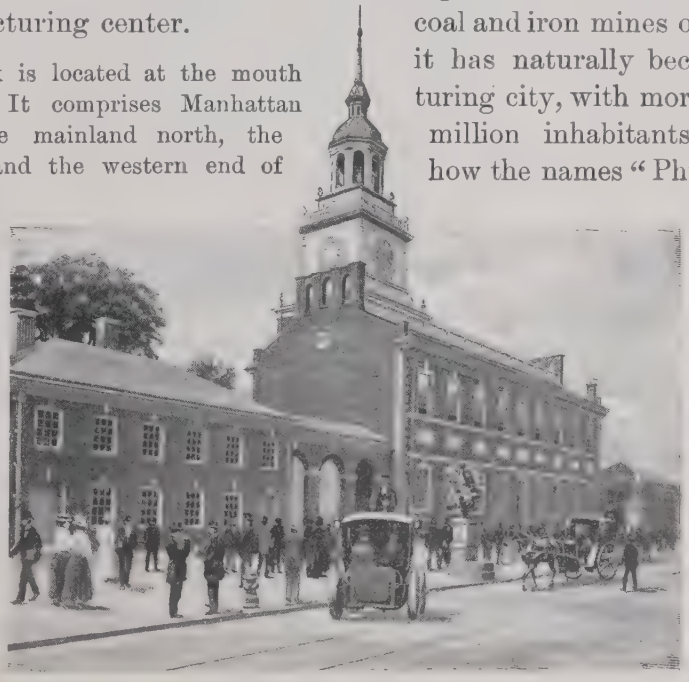
"Liberty Enlightening the World."

If we sail up New York harbor, one of the first things to attract our attention is the statue of "Liberty Enlightening the World." This enormous statue is erected on a small island.

Find the Erie Canal. Where this water way enters Lake Erie there has grown up the flourishing city of *Buffalo*, which has a large trade with the West through the Great Lakes and by rail. *Rochester*, manufactures clothing extensively.

Opposite New York is *Jersey City*. In what state and on what river is it? Many ocean steamers sail from here. A few miles inland are *Newark* and *Paterson*. The former is the largest city of New Jersey, and is a manufacturing center; the latter is noted for its silk mills.

Philadelphia is a seaport, although it is nearly a hundred miles from the ocean. How do you explain this? It is within easy reach of the coal and iron mines of Pennsylvania; hence it has naturally become a great manufacturing city, with more than one and one half million inhabitants. Ask your teacher how the names "Philadelphia" and "Pennsylvania" were made up, and also what each name means.



Independence Hall, Philadelphia.

Among the principal manufactures of Philadelphia are woolen and cotton goods, carpets, clothing, machinery, locomotives, steel ships, books, and refined sugar, and petroleum. The Declaration of Independence was made at Independence Hall in this city, July 4, 1776.

STATES OF THE
MISSISSIPPI VALLEY.
NORTHERN SECTION.
Same Scale as Maps of the States of the Atlantic Slope, the Plateau States and the States of the Pacific Slope.
Capitals of States thus: ✲
Scale of Miles.
0 50 100 200 300
150 MILES TO ONE INCH.
105° 100° 95° Longitude West from Greenwich 90° 85° 80°
DOMINION OF CANADA
MONTANA
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
COLORADO
KANSAS
OKLAHOMA
TEXAS
MINNESOTA
IOWA
MISSOURI
ARKANSAS
ILLINOIS
WISCONSIN
MICHIGAN
INDIANA
OHIO
KENTUCKY
TENNESSEE
WEST VIRGINIA
VIRGINIA
NORTH CAROLINA
PENN.
NEW YORK
ONTARIO
LAKE SUPERIOR
LAKE MICHIGAN
LAKE HURON
LAKE ERIE
L. ONTARIO
Winnipeg
L. Nipigon
Lake of the Woods
Rainy Lake
Port Arthur
ISLE ROYAL
Turtle Mts.
Grafton
Grand Forks
Devils Lake
Red Lake
Bismarck
Jamestown
Fargo
Lake Itasca
Virginia
Leech Lake
Duluth
Superior
Ashland
Ironwood
Marquette
Ishpeming
Sault Ste. Marie
Brainerd
Fergus Falls
Wahpeton
Aberdeen
St. Cloud
Stillwater
Minneapolis
St. Paul
Wausau
Marinette
Alpena
Mackinac
Georgian Bay
Deadwood
Lead
Black Hills
Pierre
Watertown
Huron
Mitchell
Sioux Falls
Yankton
Red Wing
Eau Claire
Green Bay
Mankato
Faribault
Winona
Oshkosh
Appleton
Manistee
Lake Winnebago
Sheboygan
La Crosse
Fond du Lac
Saginaw
Bay City
Flint
Muskegon
Port Huron
Milwaukee
Madison
Racine
Janesville
Grand Rapids
Lansing
Battle Creek
Detroit
Kalamazoo
Jackson
Toronto
Buffalo
Niobrara R.
Sioux City
Ft Dodge
Des Moines
Marshalltown
Dubuque
Waterloo
Cedar Rapids
Rockford
Elgin
Chicago
Aurora
Joliet
Clinton
Davenport
Rock Island
Galesburg
Norfolk
Fremont
Omaha
Council Bluffs
Grand Island
Kearney
York
Lincoln
Hastings
Nebraska City
Beatrice
Ottumwa
Burlington
Keokuk
Peoria
Bloomington
Lafayette
Muncie
Logansport
Fort Wayne
South Bend
Toledo
Cleveland
Lorain
Youngstown
Akron
Canton
Lima
Columbus
Springfield
Zanesville
Dayton
Pittsburgh
Wheeling
Parkersburg
Cincinnati
Hamilton
Terre Haute
Indianapolis
Richmond
Danville
Decatur
Springfield
Quincy
Hannibal
Moberly
St. Joseph
Atchison
Leavenworth
Kansas City
Topeka
Lawrence
Sedalia
Jefferson City
St. Louis
East St. Louis
Evansville
Louisville
Frankfort
Lexington
Owensboro
Henderson
New Albany
Huntington
Charleston
Corlington
Newport
Hutchinson
Emporia
Wichita
Fort Scott
Coffeyville
Pittsburg
Joplin
Ozark Mts.
Springfield
Cairo
Paducah
Bowling Green
Nashville
Knoxville
Republican R.
Smoky Hill R.
Arkansas R.
Cimarron R.
Missouri R.
Platte R.
Kansas R.
Osage R.
Neosho R.
White R.
Ohio R.
Cumberland R.
Tennessee R.
Green R.
Kentucky R.
Wabash R.
Illinois R.
Kaskaskia R.
Mississippi R.
Big Sandy R.
Scioto R.
Maumee R.
Detroit R.
St. Clair R.
Niagara R.
Allegheny R.
Cumberland Mts.
Allegheny Mts.
Lake Michigan
Lake Huron
Lake Erie
Lake Ontario
Georgian Bay
Green Bay
Saginaw Bay
Grand Traverse Bay
Strait of Mackinac
Lake of the Woods
Rainy Lake
Lake Winnebago
Lake St. Clair
Lake Pepin
Mississippi R.
Missouri R.
Minnesota R.
Wisconsin R.
Chippewa R.
St. Croix R.
Menominee R.
Muskegon R.
Grand R.
Des Moines R.
Cedar R.
Rock R.
Illinois R.
Kaskaskia R.
Wabash R.
Ohio R.
Kentucky R.
Green R.
Cumberland R.
Tennessee R.
Big Sandy R.
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Maumee R.
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Allegheny Mts.
Lake Michigan
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Lake of the Woods
Rainy Lake
Lake Winnebago
Lake St. Clair
Lake Pepin
Mississippi R.
Missouri R.
Minnesota R.
Wisconsin R.
Chippewa R.
St. Croix R.
Menominee R.
Muskegon R.
Grand R.
Des Moines R.
Cedar R.
Rock R.
Illinois R.
Kaskaskia R.
Wabash R.
Ohio R.
Kentucky R.
Green R.
Cumberland R.
Tennessee R.
Big Sandy R.
Scioto R.
Maumee R.
Detroit R.
St. Clair R.
Niagara R.
Allegheny R.
Cumberland Mts.
Allegheny Mts.
105° 100° 95° Longitude West from Greenwich 90° 85° 80°

Find *Pittsburgh.* What water way has it to the Mississippi Valley? This city is in the region that abounds in coal, iron, petroleum, and natural gas. It is noted for the extensive manufacture of iron and steel, machinery, and plate glass. *Scranton*, in eastern Pennsylvania, is a great coal center. It has large silk mills and machine shops.

The coal obtained from eastern Pennsylvania is known as hard coal, or anthracite. That obtained from the western part of the state, and from many other states in the Union, is called bituminous or soft coal. From what is charcoal made? In much the same manner coke is made from bituminous coal.

Wilmington, in Delaware, has large tanneries, car works, shipyards, and machine shops. Near Wilmington are great gunpowder factories.

Baltimore is one of the four great commercial ports of the Atlantic Slope. Name the other three. Which of these four is nearest to the grainfields of the West? Baltimore ships much grain, meat, and petroleum. It is the center of the oyster trade of the country.

Gathering oysters in Chesapeake Bay.

Washington is the capital of the United States, and the most beautiful city of our country. Here the President lives, and here Congress meets to make the laws of our nation. The District of Columbia, in which the capital is located, was formerly a part of Maryland.

Richmond, the capital and chief city of Virginia, is a great tobacco market. *Charlotte*, in North Carolina, has large cotton mills. *Wilmington*, in North Carolina, *Charleston*, in South Carolina, and *Savannah*, in Georgia, are the leading seaports of the South Atlantic States. *Atlanta*, the capital of Georgia, is a noted commercial city.

Jacksonville, in Florida, is the business center of the state, and is a great winter resort. Find *Tampa.* Many cigars are made here. *Pensacola*, also in Florida, ships much lumber.

Many sponges, the framework of the former home of a large number of tiny sea animals, come from the coast waters of southern Florida. Sponges are found fastened to rocks at the bottom of the sea.

Locate all the cities of the Atlantic Slope named in the text.

43. STATES OF THE MISSISSIPPI VALLEY—NORTHERN SECTION.

West Virginia (W. Va.)
Ohio
Kentucky (Ky.)
Indiana (Ind.)
Illinois (Ill.)
Michigan (Mich.)
Wisconsin (Wis.)
Minnesota (Minn.)
Missouri (Mo.)
Iowa
Kansas (Kan.)
Nebraska (Neb.)
North Dakota (N. Dak.)
South Dakota (S. Dak.)

Map Studies.—In what part of the United States is this section? Between what highland regions is the Mississippi Valley? (See relief map of the United States.) What great river drains this section? Name its largest eastern branch. Largest western branch. Tell from these rivers the general slope of the land. What states of this section border on the Great Lakes? What states are west of the Mississippi River?

The leading occupation in the Mississippi Valley is farming. This part of our country has been called the "Garden of the World." Why? The northern states of the Mississippi Valley lie in the cool belt, and the climate and soil are well fitted for raising wheat and other grains. Portions of

Wheat harvesting in Minnesota.

this section are rich in minerals, and much manufacturing is done in the cities and towns.

The greatest wheat farms of the world are found in the northwestern states of this section. A single wheatfield in Minnesota or North Dakota may cover hundreds of acres. North Dakota is the leading wheat state.

The corn belt lies farther south, Illinois being the leading corn state. Much of this grain is fed to cattle and to the vast droves of hogs, whose products are among the leading exports of our country. On the plains of Kansas and Nebraska great herds of cattle are pastured. Name the principal hog products. Cattle products.

Millions of bushels of rye, oats, and barley are raised in this section. Name some of the uses of these grains. In the northwest hops and flax are grown, and in Kentucky hemp and tobacco. What are their uses? Much wool is produced, Ohio being a leading wool-growing state.

From the forests of Minnesota, Wisconsin, and Michigan come great quantities of hard wood and pine lumber for our houses and furniture. In the states of the plains west of the Missouri and the Red rivers there is but little timber. Name these states.

Much soft coal is mined in West Virginia, Ohio, Indiana, Illinois, Iowa, Kansas, and Missouri. Petroleum and natural gas abound in Illinois, West Virginia, and Ohio. Minnesota has rich iron mines. Michigan is noted for copper, and also produces iron ore and much salt. Wisconsin has iron mines. The zinc mines of Missouri are among the most important in the world, and the state has valuable lead mines.

Find the Black Hills. The discovery of gold in these hills led to the settlement of this locality. The wheat raised in the Dakotas, however, is of greater value than the gold mined in this region.

The leading states of the northern Mississippi Valley in wealth and population are Illinois,

Felling a great pine tree.

A busy street, Chicago.

Ohio, Missouri, and Indiana. They are among the best farming states, and contain most of the large and important cities of this section.

Chicago is the chief city of the Mississippi Valley states, and is next to New York in population. In what state and on what body of water is it? Trace on the map the water route from Chicago to Buffalo. From Buffalo to New York. (See map, page 54.) Is it cheaper to send goods by water or by rail? Chicago is the greatest railway center in the world, and has extensive manufactures of iron and steel, and clothing. It is also the leading grain and meat market of the world.

In 1837 Chicago was incorporated as a city, with a population of about 4000. In 1910 its population was about 2,200,000. Where can Chicago get its coal? Its iron? Its grain? Its cattle? How can it transport these to the markets of the world? How can you account for the wonderful growth of this great city?

Great bridge across the Mississippi at St. Louis.

St. Louis, on the Mississippi River, near the mouth of the Missouri, is, from its position, a natural trade center. What three cities in the Union are larger than St. Louis?

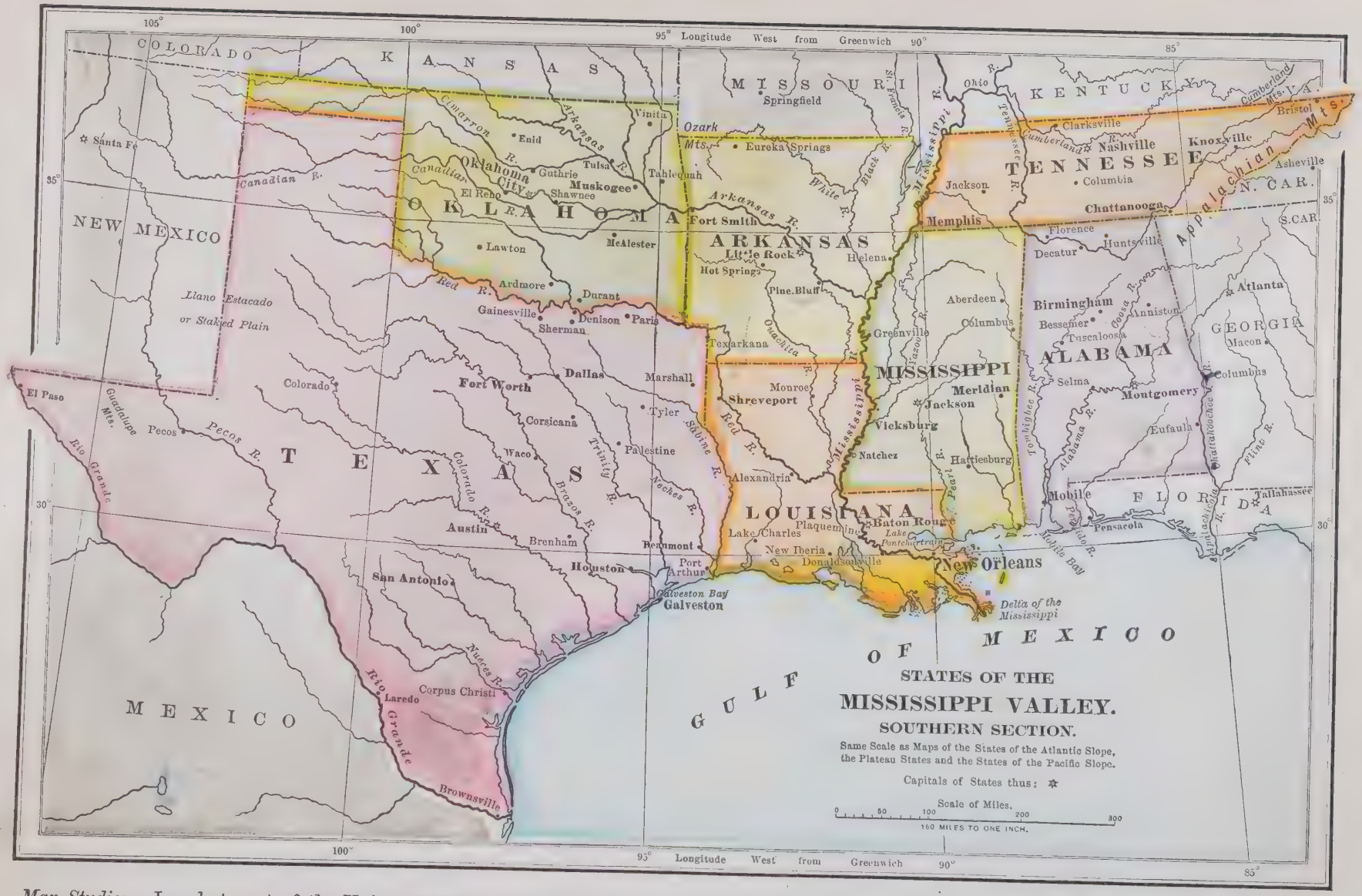
Cleveland, *Detroit*, and *Milwaukee* are among the largest shipping ports of the Great Lakes. Name another large lake port, in New York. These cities all have important manufactures.

Cincinnati, *Columbus*, *Indianapolis*, and *Louisville* are the most important cities in the Ohio Valley. Cincinnati and Columbus are great trade and manufacturing centers, Indianapolis is an important railroad center, and Louisville is one of the chief tobacco markets of the world.

The largest flour mills in the world are at *Minneapolis*, on the Mississippi River. Here the Falls of St. Anthony furnish immense water power. Across the Mississippi is the sister city of *St. Paul*, the capital of Minnesota. These two cities form a great commercial and manufacturing center.

Kansas City and *St. Joseph* are the chief cities of western Missouri, and both are important trade centers. *Kansas City*, Kansas, which adjoins the Missouri city of the same name, ranks next to Chicago in the meat-packing industry. *Omaha* is the leading commercial city of Nebraska. On what river are these cities?

Des Moines is the capital and chief city of Iowa. It is a railroad and trade center. *Sioux Falls* is the chief city of South Dakota, and *Fargo* of North Dakota. Locate the cities named in the text. Find the capital of each state.



Map Studies.—In what part of the United States is this section? Is it colder or warmer than the northern section? Why? Which is the largest state? How does it compare in size with your own state? What country borders on the southwestern part? Name the separating river. What two large branches flow into the Mississippi River from the west? What two flow into the Ohio? What water borders these states on the south? Name two bays on the coast. What two rivers flow into Mobile Bay? What mountains are in the eastern part of this section? Name four rivers which flow into the Gulf of Mexico between the Mississippi and the Rio Grande.

Cotton picking in the South.

44. STATES OF THE MISSISSIPPI VALLEY.

SOUTHERN SECTION.

Tennessee (Tenn.)	Arkansas (Ark.)
Alabama (Ala.)	Louisiana (La.)
Mississippi (Miss.)	Texas (Tex.)
Oklahoma (Okla.)	

The states that form the southern section of the Mississippi Valley are also farming states. In all of them cotton is cultivated and corn is the principal grain. The lowlands of Louisiana yield about half the rice and most of the sugar cane raised in the United States.

Much of this section is heavily wooded with oak, ash, hickory, and other hard woods. In Alabama and Mississippi are great forests of yellow pine like that along the south Atlantic coast. Western Texas and Oklahoma are almost treeless, but afford pasturage for vast herds of cattle.

The mineral wealth of this section is considerable. Tennessee has mines of coal and iron, and much fine marble. Northern Alabama has much coal, iron, and limestone. Arkansas is famous for hot springs. In many of the cities the manufactures are becoming important.

Indian Territory was set apart by the United States government as the home of those Indian tribes that had given up their lands elsewhere. Many of the Indians living in this region are civilized. Oklahoma Territory was formed from parts of Indian Territory and was opened to white settlers. Later the remaining part of Indian Territory was added to it and Oklahoma became a state.

The inhabitants are a thrifty people who raise millions of bushels of wheat and corn and many bales of cotton. In the eastern part of the state are extensive coal mines, and there are also valuable oil wells. *Oklahoma City*, the capital, and *Muskogee* are trade centers.

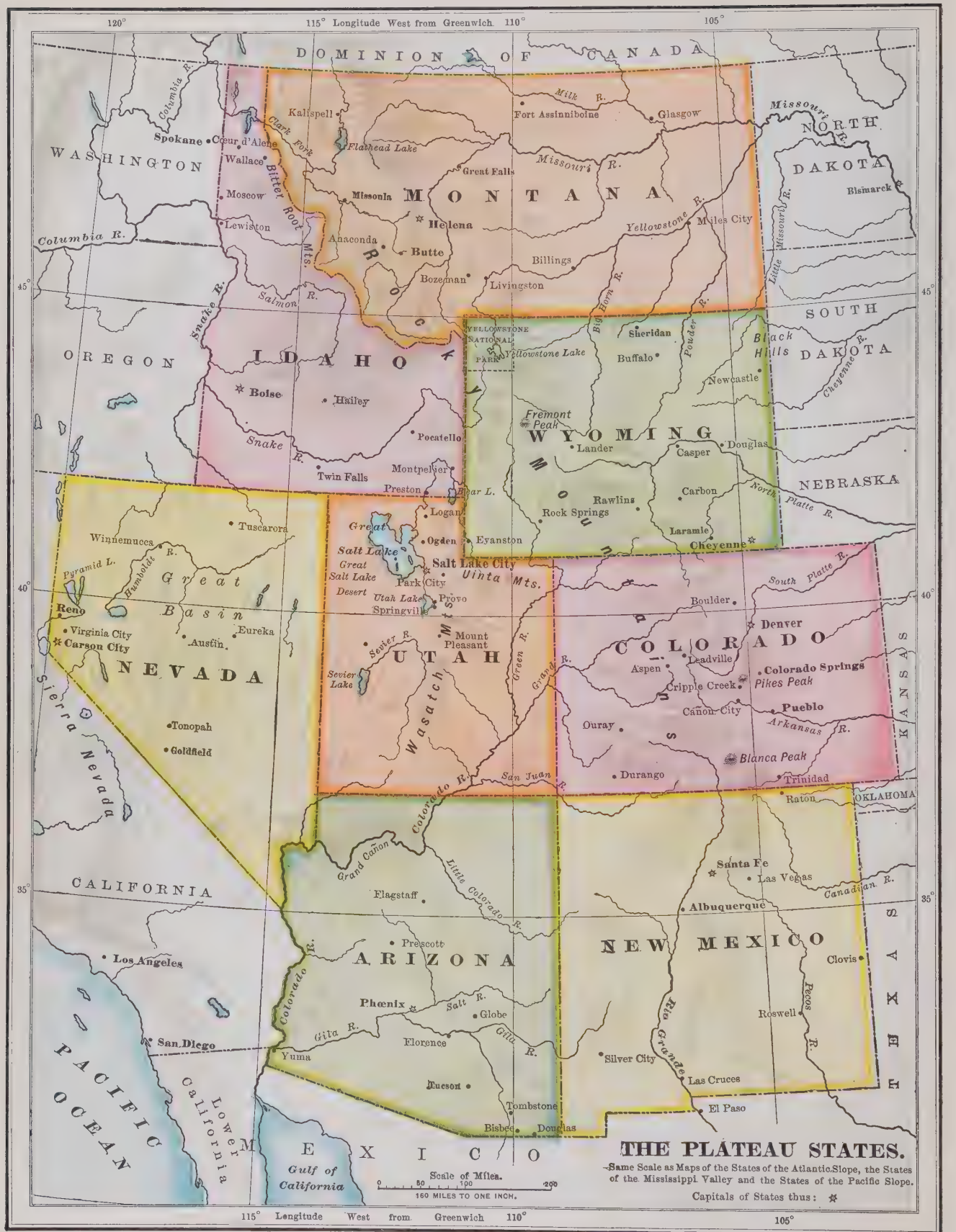
The coast of the states bordering on the Gulf of Mexico is low and sandy. Many of the river mouths are obstructed by sand bars. There are but few good harbors.

Shipping cotton and sugar, New Orleans.

New Orleans is the largest city of the South. It is built around a sharp bend of the Mississippi River, and for that reason is often called the Crescent City. It is the chief outlet of trade in the south, and is one of the greatest cotton markets in the world.

Birmingham has great iron and steel works. *Nashville* is an important inland center of trade. *Memphis*, on the Mississippi River, and the gulf ports of *Mobile* and *Galveston*, ship large quantities of cotton. *San Antonio* is the chief trade center of southern Texas. *Little Rock* is the capital and chief city of Arkansas.

Locate all the cities named in the text. Find the capital of each state.


120° 115° Longitude West from Greenwich 110° 105°
DOMINION OF CANADA
WASHINGTON
OREGON
IDAHO
MONTANA
WYOMING
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
COLORADO
UTAH
NEVADA
CALIFORNIA
ARIZONA
NEW MEXICO
KANSAS
OKLAHOMA
TEXAS
Great Basin
Rocky Mts.
Wasatch Mts.
Sierra Nevada
Uinta Mts.
Black Hills
Pikes Peak
Blanca Peak
Columbia R.
Snake R.
Salmon R.
Clark Fork
Bitter Root Mts.
Missouri R.
Milk R.
Yellowstone R.
Big Horn R.
Powder R.
Little Missouri R.
Cheyenne R.
North Platte R.
South Platte R.
Arkansas R.
Canadian R.
Pecos R.
Rio Grande
Green R.
Grand R.
Gila R.
Salt R.
Little Colorado R.
Grand Cañon
Colorado R.
San Juan R.
Sevier R.
Humboldt R.
Pyramid L.
Great Salt Lake
Salt Lake
Sevier Lake
Utah Lake
Bear L.
Flathead Lake
Yellowstone Lake
YELLOWSTONE NATIONAL PARK
Fremont Peak
Kalispell
Fort Assinniboine
Glasgow
Spokane
Coeur d'Alene
Wallace
Moscow
Lewiston
Missoula
Great Falls
Helena
Anaconda
Butte
Bozeman
Billings
Miles City
Livingston
Sheridan
Buffalo
Newcastle
Lander
Casper
Douglas
Rawlins
Rock Springs
Carbon
Laramie
Cheyenne
Evanston
Logan
Ogden
Salt Lake City
Park City
Provo
Springville
Mount Pleasant
Boise
Hailey
Pocatello
Twin Falls
Montpelier
Preston
Tuscarora
Winnemucca
Reno
Virginia City
Carson City
Austin
Eureka
Tonopah
Goldfield
Boulder
Denver
Aspen
Leadville
Colorado Springs
Cripple Creek
Canon City
Pueblo
Ouray
Durango
Trinidad
Raton
Santa Fe
Las Vegas
Albuquerque
Flagstaff
Prescott
Phœnix
Globe
Florence
Yuma
Tucson
Tombstone
Bisbee
Douglas
Silver City
Las Cruces
El Paso
Clovis
Roswell
Los Angeles
San Diego
PACIFIC OCEAN
Lower California
MEXICO
Gulf of California
Scale of Miles.
0 50 100 200
160 MILES TO ONE INCH.
THE PLATEAU STATES.
Same Scale as Maps of the States of the Atlantic Slope, the States of the Mississippi Valley and the States of the Pacific Slope.
Capitals of States thus: ✲
115° Longitude West from Greenwich 110° 105°

Strange rock forms, Colorado.

45. THE PLATEAU STATES.

Montana (Mont.)	Utah
Idaho	Colorado (Colo.)
Wyoming (Wyo.)	Arizona (Ariz.)
Nevada (Nev.)	New Mexico (N. Mex.)

Map Studies.—In what part of the United States are the Plateau States? Which two border on Canada? Which two on Mexico? How many inches do these states extend on the map from north to south? Tell by the scale how many miles this distance represents. What kind of surface have the Plateau States? Find the head waters of the Missouri River. Of the Snake branch of the Columbia. Of the Green branch of the Colorado. In what state do all these rise? What oceans do their waters finally reach? What states do the Rocky Mountains cross?

The Plateau States occupy the highest and most rugged part of our country. Most of the surface is a mile or more above the sea level. What difference does this elevation make in the climate?

Think of a snowstorm in our country on the Fourth of July! Yet this often happens among the mountains of these states. There is snow on Pikes Peak all the year. Find this peak.

These states, however, have hot summer days, but the nights are always cool. The winters, except in the extreme south, are very severe. Find Arizona. The southwestern part of this state is lowland, and here is found the hottest and driest region in the United States.

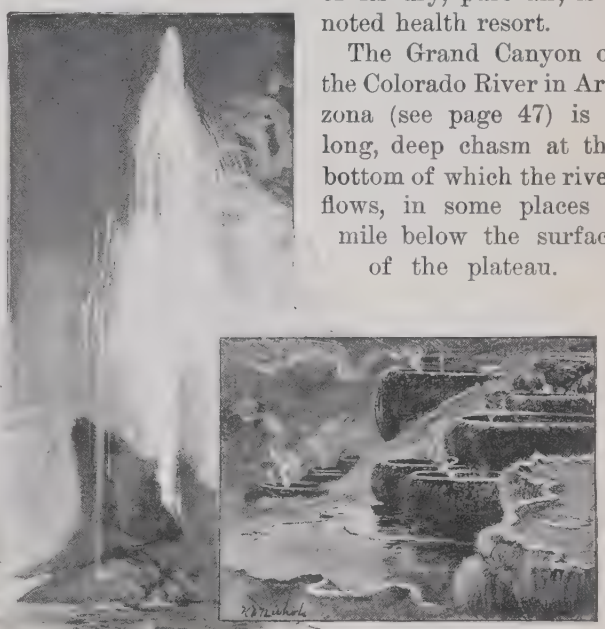
Find the Great Basin. Most of Nevada and a part of Utah lie in this basin. Notice that its streams have no outlet to the sea. What do you know about its lakes? Find Great Salt Lake. Much of the Great Basin is a desert.

Many years ago an immense inland sea covered this basin. This is shown by the old shore lines high up along the surrounding mountain sides.

Find the Yellowstone Park. It is the "Wonderland of America." Here are great geysers, shooting up columns of hot water high in the air. Here also are boiling springs, mud pools, fire holes, lakes, waterfalls, and rocks of many colors and strange forms. Everywhere the scenery is grand and beautiful.

The Plateau States abound in natural wonders. In Colorado, the "Garden of the Gods" attracts thousands of visitors. It is a narrow inclosed valley at the foot of Pikes Peak, full of strange rock forms. The region surrounding Pikes Peak, on account of its dry, pure air, is a noted health resort.

The Grand Canyon of the Colorado River in Arizona (see page 47) is a long, deep chasm at the bottom of which the river flows, in some places a mile below the surface of the plateau.



Geyser and hot springs, Yellowstone Park.

Considerable farming is done in the river valleys and near the mountains, where the land can be irrigated. What is irrigation? Sugar beets are extensively grown in Colorado and Utah. East of the Rocky Mountains these states stretch out into the Great Plains, on which vast herds of cattle and immense flocks of sheep are pastured. The wool clip is large.

The rainfall in this part of the section is slight, but it is sufficient for the growth of bunch grass, which makes very good pasturage. Some of the stock farms, or ranches, are as large as Rhode Island.

The most important industry of this section, however, is mining. It is the greatest silver-mining region in the world, and is rich, also, in gold, copper, and lead. Colorado and Nevada lead in the production of gold; Nevada, Montana, and Utah, in silver; Arizona and Montana, in copper; and Idaho, Utah, and Colorado, in lead. Coal is mined in Colorado and Wyoming.

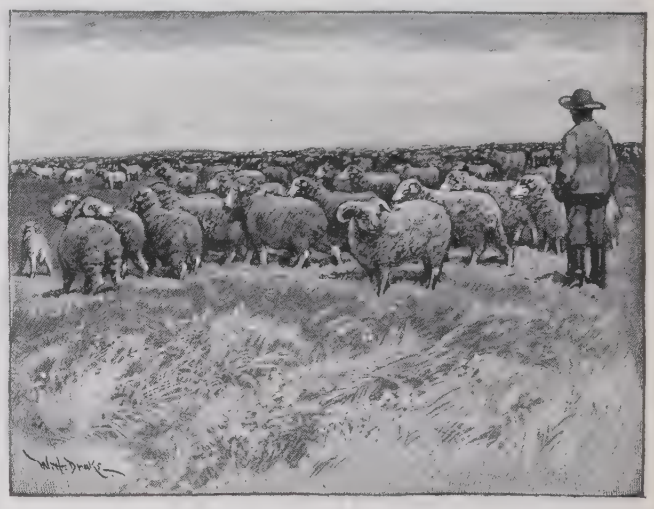
Shipping silver bars, Colorado.

The southern part of this section was settled by Spaniards, and their language is still spoken to some extent. *Santa Fé*, the capital of New Mexico, is a very old city. It was an Indian village long before the Spaniards came to this country. There are more Indians in New Mexico than in any other part of the section.

Denver is the largest city and the most important commercial center of the Plateau States. It is near a rich mining region, and smelting is a leading industry. What is smelting?

Pueblo, in Colorado, has smelters and iron works. *Colorado Springs* is a health resort. *Butte*, in Montana, has some of the largest copper mines in the world.

Find *Salt Lake City*. It was built by a people called Mormons, who founded a state in the wilderness. The Mormon temple and tabernacle attract much attention from visitors. Find the capital of each state, and locate all the cities named in the text.



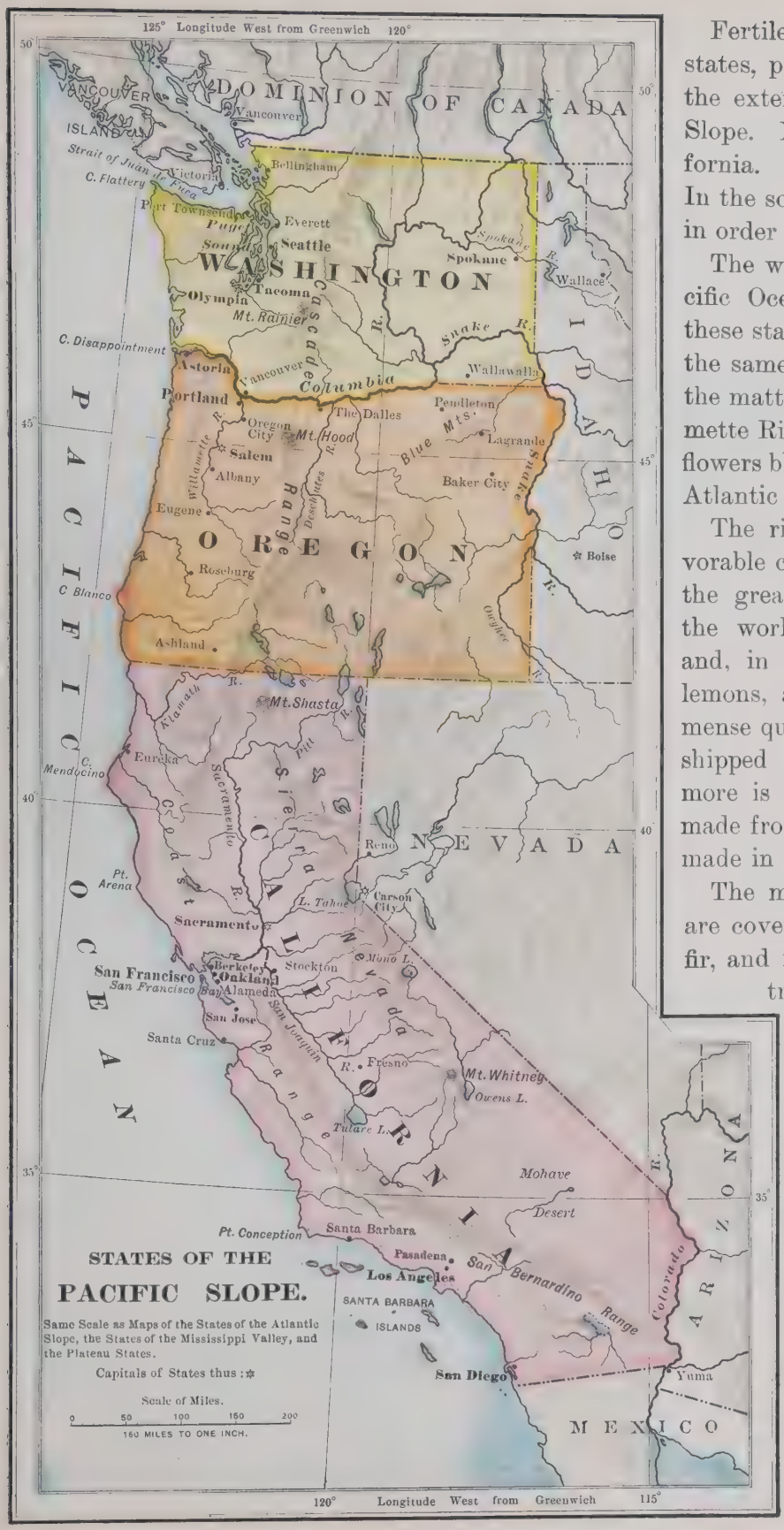
Sheep ranch, Wyoming.

46. STATES OF THE PACIFIC SLOPE.

WASHINGTON (WASH.)
OREGON (ORE.)
CALIFORNIA (CAL.)

Map Studies.—In what part of the United States is this section? What do you know of its surface? What mountain ranges are in these states? Which is the largest state? How does it compare in size with your own state? What important harbor in California? What large arm of the sea extends into Washington? What large river in the north? What river borders southeastern California?

The snow-capped ranges of the Sierra Nevada and the Cascade Mountains traverse this section from north to south. East of these ranges the climate is much drier than on the western slope. What reason can you give for this?



Fertile valleys run through these states, parallel to the coast. Here are the extensive grainfields of the Pacific Slope. Notice the great valley of California. What rivers drain this valley? In the south the land must be irrigated in order to raise good crops.

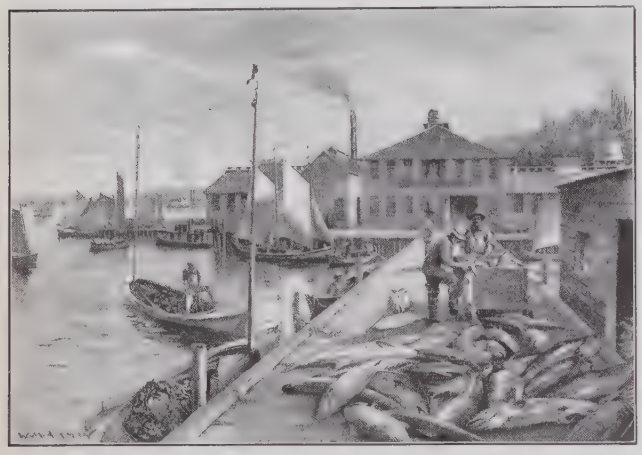
The warm, moist winds from the Pacific Ocean give the coast valleys of these states a mild climate that is much the same throughout the year except in the matter of rainfall. Find the Willamette River. In the valley of this river flowers bloom most of the winter. What Atlantic state has the same latitude?

The richness of the soil and the favorable climate make this region one of the greatest fruit-growing countries in the world. Grapes, cherries, prunes, and, in the southern section, oranges, lemons, and apricots are raised in immense quantities. Much of the fruit is shipped East in refrigerator cars, but more is canned for export. What are made from grapes? Much beet sugar is made in California.

The mountain slopes of this section are covered with dense forests of pine, fir, and redwood. Some of the largest trees in the world are found in central California. Find Puget Sound. Some of the most extensive lumber mills in the country are on this body of water. The lumber products are shipped in large quantities to all parts of the world.

The "big trees" of central California are among the wonders of this section. Some of them are more than 300 feet high and from 50 to 100 feet in circumference. At the base of one of the largest a tunnel has been cut, through which a four-horse team has been driven. (See picture, page 43.)

The hilly lands of the Pacific States make good pasture grounds, and many cattle and sheep are raised. Much fine wool is produced, and the dairy products are valuable. Of what other wool-growing regions have you learned?

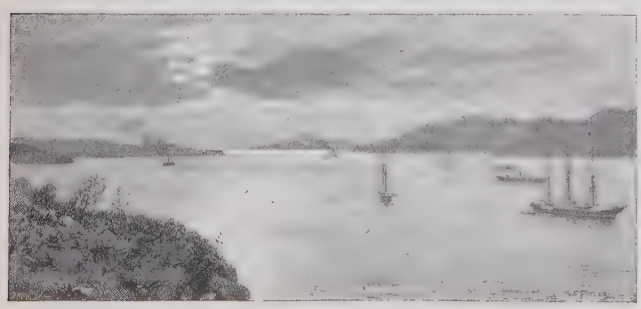


A salmon cannery.

In the northern rivers, especially in the Columbia River, are some of the most noted salmon fisheries in the world. Millions of pounds of these fish are canned and exported every year.

The discovery of gold in California in 1848 led to its rapid settlement. For many years it produced more gold than any other state, yet the products of its soil are now of more value than those of its mines. California is noted for its productive oil wells. Much of the coal used on the Pacific Slope is mined in Washington.

There is much grand and beautiful scenery among the mountains and valleys of this section. The famous Yosemite Valley in California attracts visitors from all parts of the country.



Golden Gate, San Francisco.

San Francisco is the chief city of this section. It is one of the natural gateways of commerce between the United States and the countries bordering on the Pacific Ocean. What is its harbor called? The entrance to this fine harbor is known as the "Golden Gate." Why was this name given to it?

People of all nations are found in San Francisco. One part of this city is called "Chinatown." Here are more Chinamen than in any other city in the United States. They have their own shops, stores, and places of worship and amusement.

Orange grove, southern California—irrigation.

Los Angeles, in southern California, is the center of the fruit and wine trade. It is also a noted health resort.

Portland is one of the important cities on the Pacific coast. It is at the head of ship navigation on the Willamette River, more than one hundred miles from the ocean, and has a large foreign commerce.

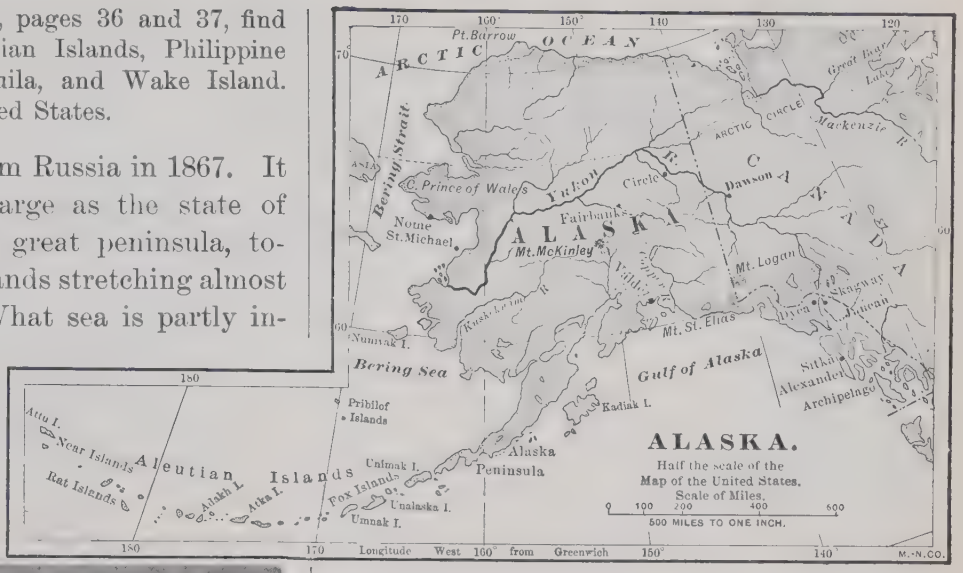
Compare the location of this city with that of Portland, Maine. Tell by the scale of the map of the United States how far apart the two cities are. How far is New York from San Francisco?

Find *Seattle*. On what body of water is it? Seattle is a commercial center, and has a large trade with Alaska. *Spokane* has fine water power. It is the commercial center of eastern Washington.

Locate all the cities named in the text. Find the capital of each state.

47. DETACHED POSSESSIONS OF THE UNITED STATES, WITH CUBA.

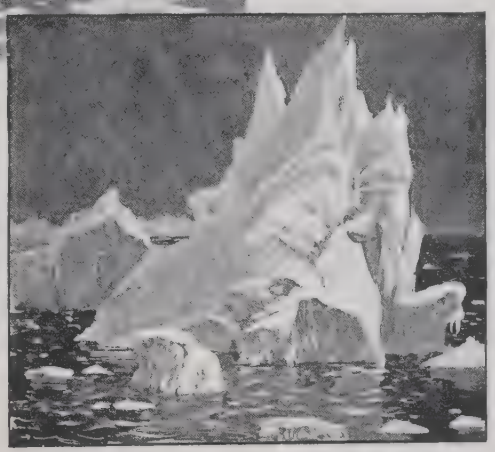
On the map of the world, pages 36 and 37, find Alaska, Porto Rico, Hawaiian Islands, Philippine Islands, Guam Island, Tutuila, and Wake Island. These all belong to the United States.



On the map of Alaska, find the Aleutian Islands. Of what are they a part? Find Mount St. Elias. It is one of the high peaks of North America. Which is the highest peak?

The climate of northern Alaska is one of extreme cold. In the south it is milder than that of the same latitude on the Atlantic coast. This is due to the warm, moist winds of the Pacific which blow over its shores. In this section, many glaciers form in the mountain valleys, and descend to the sea, where they break off in huge masses, called *icebergs*.

The glaciers descend to the sea,



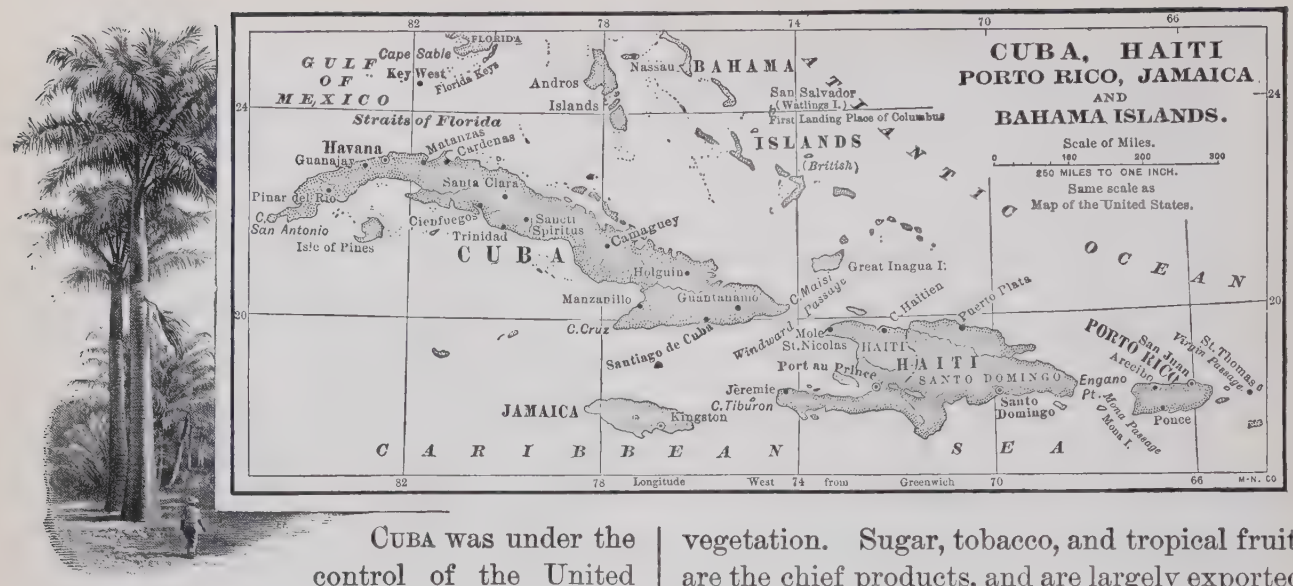
and break off in huge masses, called icebergs.

Glaciers are formed by snow that falls and drifts into narrow valleys far up among the mountains. In time this snow becomes compressed into solid ice, which moves slowly down the slopes a few inches or a few feet daily. For this reason glaciers have been called "rivers of ice."

What do you learn of the surface of Alaska from the relief map (page 39)? What large river flows through this country? It forms a water way to the famous Klondike gold region in Canada, but is closed by ice the greater part of the year. Find

The wealth of Alaska is in its furs, its fish, and its rich gold mines. Find the Pribilof Islands. The seal fisheries of these islands are the most noted in the world. Have you ever seen seal furs? What use is made of them?

About half the people of Alaska are whites. In the southwest, most of the natives are Indians. In the north are a few Eskimos. *Juneau* is the capital, and *Fairbanks*, the largest city.



Royal palms.

Cuba was under the control of the United States from 1898 to 1902, when it became an independent republic. What separates Cuba from Florida?

In 1898 war broke out between the United States and Spain. The chief events of this war were the destruction of the Spanish fleets at Manila, in the Philippine Islands, and at Santiago in Cuba. By a treaty made in December, 1898, Spain surrendered the Philippine Islands, Porto Rico, and a number of smaller islands to the United States. She also gave up all claim to the island of Cuba.

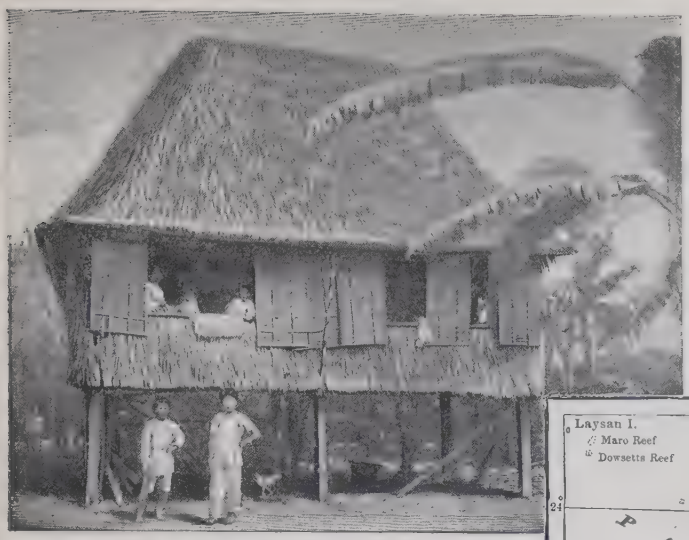
A sugar estate, Cuba.

Cuba is nearly as large as Pennsylvania. Part of it is mountainous. From its locality, what kind of a climate should it have? The fertile soil and abundant rainfall cause a rich vegetation. Sugar, tobacco, and tropical fruits are the chief products, and are largely exported. There are many negroes on this island. *Havana*, the capital, has a fine harbor, and is a great commercial city.

Porto Rico is about five hundred miles east of Cuba. It is nearly half as large as New Jersey. The surface is hilly, and the climate is more healthful than that of the other islands of this region. Coffee, sugar, and tobacco are the chief products. The island is thickly settled, and many of the people are negroes. *San Juan* is the capital and largest city. Find *Ponce*.

San Juan, Porto Rico.

The Philippine Islands lie in the same belt as Cuba and Porto Rico. (See map, pages 36

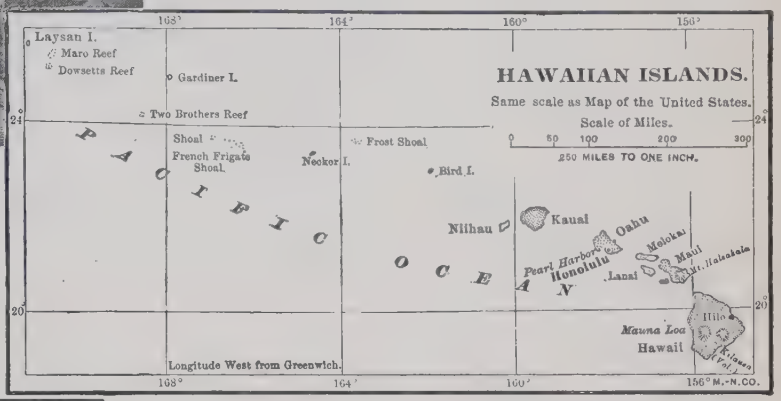


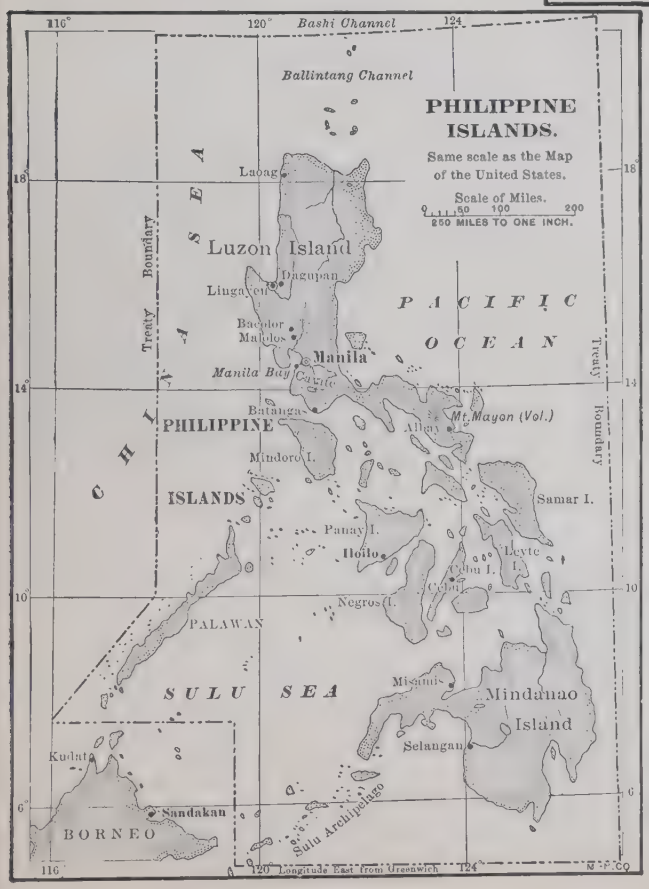
A native house, Philippine Islands.

and 37.) Both groups have, therefore, nearly the same climate and vegetation. There are two thousand islands in the Philippine group. Many of them are mountainous. Luzon, the largest, is about the same size as Virginia.

The people belong mostly to the Malay or brown race. They are called "Filipinos." *Manila*, the capital, is a large commercial city, and exports great quantities of hemp and tobacco.

The HAWAIIAN ISLANDS were annexed to the United States in 1898. They form a mountainous group far out in the Pacific Ocean, about two thousand miles southwest of San





Francisco. Where is San Francisco? This group gets its name from Hawaii, the largest island. There are eight principal islands and a number of very small ones.

The climate is very pleasant. The natives who belong to the brown race are fast dying out. Much sugar is raised and exported. *Honolulu*, the capital, is an important commercial city.

A native feast, Hawaiian Islands.

TEST AND REVIEW QUESTIONS.

36. In what continent is the United States? In what part? What is the climate? What waters border our country? What other countries? Which of the coast lines are most broken? Name the principal bays. Capes. Draw an outline map of the United States.

37. Where is the great highland region? The smaller highland region? What lies between them? Where is the Atlantic Slope? The Pacific Slope? What great river drains the Mississippi Valley? Name its chief branches. Name two rivers of the Pacific Slope. What river drains the Great Lakes? Name four rivers of the Atlantic Slope. Where is the greatest rainfall? Why? The least? Why?

38. In what respects is the United States a great country? What helps to make it so? How many people live in the United States? What kinds of people?

39. To what country did the United States at first belong? When did the colonies become free? Name the thirteen original states. How many are there now? What other land does the United States own? What form of government do we have? What is the difference between a state and a territory? Who is now President of the United States? Make a picture of the "Star-Spangled Banner."

40. Name the sections into which the United States may be naturally divided. Tell where each is located. Which is the largest? The smallest?

41. What is the climate of New England? What is the leading industry? Why? Name some of the manufactures. What are some of the other important interests? Which is the largest city? The next largest?

42. How does the climate of the States of the Atlantic Slope vary? Why? What are the two great manufacturing and commercial states of this section? Which state has the greatest mineral wealth? Name the leading products of the Southern Atlantic States. Which is the foremost state of the Union? In what does it lead? The chief city of the Union? What other very large city in this section? Name the principal seaports.

43, 44. What is the leading occupation of the States of the Mississippi Valley? Where is the most wheat raised? Corn? Cotton? Cattle? Sugar? Where are the great lumber regions? What is the chief city of this section? Name three other large cities on the Great Lakes. One on the Ohio River. One at the mouth of the Missouri River. One near the mouth of the Mississippi.

45. Why are the Plateau States so called? What kind of surface has this section? Climate? What is the most important industry? Name some of the wonders of the Plateau States. Which is the largest city?

46. What mountains traverse the States of the Pacific Slope? What is the climate of this section? What are the leading products? Name the largest and most important city.

47. Name the detached possessions of the United States. Where is Alaska? When and how did the country become ours? What of its climate? People? Products? Where is Porto Rico? Where are the Philippine Islands? When and how did we gain possession of these islands? What of their climate, people, and products? Chief city? When were the Hawaiian Islands annexed? Describe their climate, people, products, and chief city.

OTHER COUNTRIES OF NORTH AMERICA.

(*See map, page* 44.)

48. DOMINION OF CANADA, AND NEWFOUNDLAND.

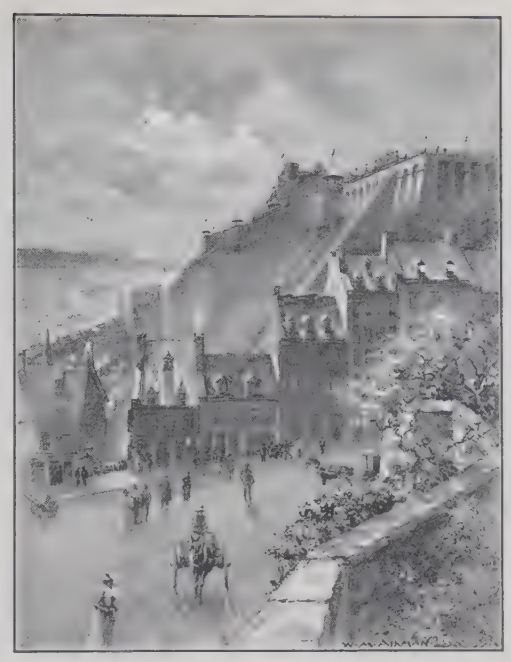
Map Studies.—What waters border on Canada? What countries? What large inland body of water in Canada? What connects it with the Atlantic Ocean? What gulf in the southeast? What large island east of this gulf? What island southwest of Canada? Where is the main highland region of Canada? Where is Mount Logan? What river flows into the Arctic Ocean? Of what lakes is this river the outlet? What river flows into Hudson Bay? From what lake? What river flows into the Gulf of St. Lawrence? From what lakes does it flow?

Caribou or reindeer.

You will notice from the maps that the greater part of Canada lies in the Central Plain of North America. What country occupies the southern part of this plain? Tell by the rivers the difference in the general slope of these two countries. What have you learned about the climate of the northern part of North America?

While Canada is an English colony, it mainly governs itself. The chief ruler, however, is appointed by the King of England. Newfoundland, including Labrador, also is a colony of England, but does not form part of the Dominion of Canada.

The winters even in southern Canada are long and cold, but grains, fruits, and vegetables ripen there during the summer months. West of Lake Winnipeg are broad, fertile prairies which reach to the Rocky Mountains. Here large crops of wheat are raised, much of which is sent to the United States and Europe.



The city of Quebec.

North of the grain-growing section is a great forest belt that stretches across the continent. Besides yielding much lumber, these forests are the home of many fur-bearing animals, that are hunted chiefly by the Indians. Here and there through the fur country are built trading posts,

A Canadian trading post.

or houses where the furs are collected and shipped to Europe and the United States.

Rivers and lakes are the main highways of the fur country. When the ice melts in the rivers, canoes are used to transport goods. In winter, loads are carried over the frozen streams and through the snowy forests on sledges drawn by dogs. Men on foot use snowshoes to help them travel.

Beyond the forest belt the icy plains of the "Great Lone Land" stretch northward to the frozen ocean. There are a few scattered tribes of Indians and Eskimos in this region. The latter live near the coast in winter, but during the short arctic summer they move inland to hunt the caribou, or reindeer, which wander in herds over the country.

The mineral wealth of Canada is principally in the mines of coal and gold in the western highland region. Find *Dawson.* It is the center of the famous Klondike gold region.

Find *Ottawa.* It is the capital of the Dominion of Canada. Find *Quebec* and *Montreal.* These are important commercial cities on the St. Lawrence River. They are connected with the Pacific coast by the Canadian-Pacific Railroad, one of the longest in the world.

Find *Winnipeg.* It is the center of the Canadian wheat-growing region.

On what peninsula is *Halifax?* Find *St. John's,* the capital of Newfoundland. The waters near by abound in codfish, mackerel, and herring; hence these cities are great fishing centers. Salmon are caught in the eastern streams, but in greater numbers on the Pacific coast.

49. DANISH AMERICA.

Map Studies.—By what waters is Greenland surrounded? In what cape does it end in the south? Where is Iceland? What noted volcano in Iceland?

GREENLAND. Think of a country almost entirely covered with snow and ice hundreds of feet thick! Such is Greenland, the home of glaciers and icebergs. Along the western coast of the island are several Danish settlements and a few scattered tribes of Eskimos.

A little grass and a few stunted trees grow in sheltered places, also the moss upon which the reindeer feeds. During the short arctic summer a few flowers bloom. The polar bear and the musk ox are found here, and the surrounding seas abound with whales, seals, walruses, and many kinds of waterfowl.

Iceland. Because of warm ocean currents, the climate of Iceland is milder than that of Greenland, and grass and hardy vegetables grow well. The people are intelligent, and set great store by learning. They are employed in fishing, and in raising horses, cattle, and sheep.

The extremes of heat and cold seem to meet in Iceland. Numerous geysers spout up boiling water, and active volcanoes send out floods of fiery lava amid fields of snow and ice.

A street in the city of Mexico.

50. MEXICO, CENTRAL AMERICA, AND THE WEST INDIES.

Map Studies.—In what part of North America are Mexico and Central America? What mountain peak in Mexico? What waters east of Mexico? West? What river between the United States and Mexico? What peninsula in the western part of Mexico? In what cape does it end? What peninsula in the southeast? What large lake in Central America? Where are the West Indies? What sea do they partly inclose? Name the largest four islands. What group of islands northeast of Cuba?

A Mexican kitchen.

Mexico. Let us cross Mexico from east to west. Along the gulf coast is a broad, low plain, which is hot, moist, and unhealthful. As we go westward the land rises gradually. We see plantations of cotton, sugar cane, coffee, and tobacco. There are forests of palm, mahogany, and other trees of the warm belt. Here are found also the plants that produce vanilla and sarsaparilla. Monkeys and many bright-colored birds and insects abound.

We continue our journey, getting higher and higher above the sea level as we near the mountains. Does the weather get warmer or cooler as we ascend? We notice trees of the same kinds that grow in our own country. We see also fields of wheat and corn, and herds of cattle and sheep.

This journey can be made by rail in a few hours, and these changes in climate and products noticed during the trip.

We reach at last the central plateau which forms a large part of Mexico. What is a plateau? Lofty mountain chains rise from the edge of this highland, and here and there are snow-covered peaks, many of which are volcanoes. Find Mount Orizaba. It is one of the highest mountains of North America. Are there any large rivers in Mexico?

Many cattle and sheep are raised on this plateau. There are also rich silver mines that have been worked ever since the country was

conquered by the Spaniards, about four hundred years ago. Indians and half-breeds form a large part of the population. The latter are the descendants of whites and Indians.

The city of *Mexico* is the capital and most important city. Find *Vera Cruz.* Most of the foreign commerce of the country passes through this port. The chief exports are silver, hides, coffee, gold, copper, and vegetable fibers.

Loading mahogany logs.

CENTRAL AMERICA consists of six small republics and a British colony. The surface, climate, products, and people are similar to those of southern Mexico. In the chief mountain range, along the Pacific coast, there are many volcanoes. We get from these countries rubber, hides, mahogany, logwood, coffee, and bananas.

A great ship canal has been constructed by the United States government across the Isthmus of Panama, between the cities of *Panama* and *Colon*, to connect the waters of the Caribbean Sea with those of the Pacific Ocean.

The WEST INDIES is the name given to the chain of islands that extends almost from Florida to South America. The largest and most important are Cuba, Haiti, Jamaica, and Porto Rico. Jamaica is a British colony, and Haiti is divided into two negro republics. What have you learned of Cuba and Porto Rico? (See page 70.)

Loading bananas.

Some of these islands are mountainous, and others, like the Bahamas, are low coral formations. Fierce storms called *hurricanes* sweep over the West Indies, causing great loss of life and property. In what zone are they? What, then, is their climate?

We get from the West Indies great quantities of sugar, tobacco, bananas, and other products of the hot and the warm belts. Many of the people are negroes. Find *Havana.* It is the chief center of commerce of the West Indies.

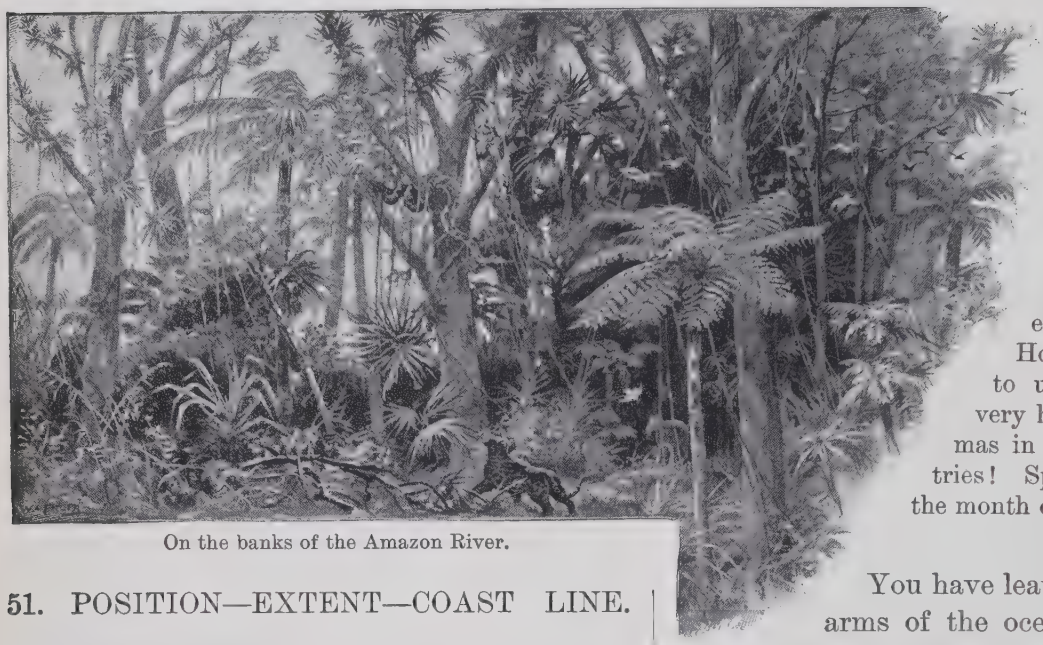
TEST AND REVIEW QUESTIONS.

48. To whom do the Dominion of Canada and Newfoundland belong? Why do many of the people speak the French language? What have you learned of the climate? Where is the wheat region? The fur region? The gold region? Where are the fisheries? What fish are caught? What is the capital of Canada? Where are most of the cities?

49. What islands form Danish America? Describe the surface of Greenland. What plants are found there? What animals? Who live there? Why is Iceland warmer than Greenland? For what are the people noted? What are raised on the island? What famous volcano is there?

50. In what zones are Mexico and the West Indies? In what zone is Central America? What kind of climate would these countries naturally have? Explain why the products of both the warm and the cool belts are found in Mexico. Name some of these products. What is the chief mineral wealth of Mexico? Of what does Central America consist? To whom do the four principal West India islands belong? What do we get from the West Indies and Central America? What city is the chief commercial center?

SOUTH AMERICA.



On the banks of the Amazon River.

That portion of South America which lies in the South Temperate Zone has the same seasons that we have in our own country. In what zone is our country? When it is summer with us, however, it is winter there. How strange it sounds to us when we read of very hot weather at Christmas in those southern countries! Spring there begins in the month of October.

51. POSITION—EXTENT—COAST LINE.

In what direction is South America from North America? What isthmus connects the two grand divisions? What ocean east of South America? West? South America is a little more than two thirds as large as North America. Notice that these two grand divisions are somewhat alike in shape. Both of them are widest at the north, and both taper to a narrow strip at the south.

You will see by the map that the coast line of South America is very regular, the chief breaks being made by the mouths of the Amazon and La Plata rivers. How may the interior of the continent be reached by sailing vessels and steamers?

Find the equator on the map. What part of South America does it cross? In what zone is this part of the grand division? What is the climate? As you go south from the equator, does the climate grow warmer or colder? What zone lies south of the Torrid Zone? (See map, page 25.) What part of South America is in this zone? Where is the coldest part of South America? Of North America?

You have learned that no large arms of the ocean extend far into the land in South America; name two such bodies of water in North America. What sea is north of South America? Name an arm of this sea that is called a lake.

What are the most northern, eastern, southern, and western capes of South America. (See map, page 80.) What gulf is south of the Isthmus of Panama? What gulf on the Pacific coast south of the equator?

What island on the eastern side of South America, at the mouth of the Amazon River? What island at the southern end of South America? What strait between this island and the mainland? Ask your teacher to tell you the story of Magellan.

What small island west of the southern coast of South America? What famous story is supposed to be connected with this island? The equator crosses a group of islands farther north; what is this group called?

Galapagos is a Spanish word; it means "turtles." These islands were so called because many giant turtles were found there. Some of them were large enough to carry a man upon their backs.

Relief Map of SOUTH AMERICA.—Same Scale as North America, Asia, Africa, and Australia.

52. SURFACE AND DRAINAGE.

Find on the map the great highland region of South America. In what direction does it extend? This region is called the *Andes Highland.* Its chief mountain ranges are the *Andes Mountains.* They form an almost unbroken wall from the Caribbean Sea to the Strait of Magellan. What other grand division has a wide highland region in the western part? The altitude of the Andes Highland is more than twice that of the Western Highland of North America. Find Mount Aconcagua. It is the highest point of the Western Continent.

On the western side of the Andes Highland the slope is short and steep. What kind of streams would you expect to find there? On the east is a long, gentle slope stretching to the Atlantic Ocean. In the northeast this slope is broken by the *Guiana Highland.* In

the widest part of the grand division it is broken by the *Eastern* or *Brazilian Highland.* These two highland regions are much less in altitude than the Andes Highland.

In the Andes Highland there are more than thirty volcanoes that nearly always appear to be crowned with smoke or flame. Such volcanoes are said to be *active.* In this region the earth at times shakes fearfully. Buildings are thrown down, whole cities are laid in ruins, and thousands of people lose their lives. The earth may be said to quake, hence these shakings are called *earthquakes.*

An earthquake.

Sometimes we have earthquakes in our own country. Did you ever feel the earth tremble? Ask about the earthquake that did great damage to the city of Charleston in 1886.

South America, like North America, has a central plain that runs nearly the whole length of the grand division. Like the plain of North America, it has also a low swell of land crossing the middle part. Notice the streams flowing north and south from this divide. Trace a line between the river basins of the Amazon and the Rio de la Plata.

The Amazon is the greatest river in the world. It is so wide at its mouth that the land cannot be seen on either side from a vessel in the middle of the stream. Two thousand miles from its mouth the river is more than a mile wide. In the season of floods its waters spread out over the lowland for hundreds of miles. Let us see where all this water comes from.

A flood in the Amazon.

The winds in the northern half of South America blow westward from the Atlantic Ocean. As these moist winds glide up the eastern slope of the Andes Highland they reach an altitude where they become chilled, and the water falls in heavy rains on the slope, and drains off into the large rivers which flow into the Atlantic Ocean.

By the time the winds get over the high Andes in the northern part they have dropped all their moisture, leaving none for the western slope. There are parts of this coast where it has not rained within the memory of man. Is the land fertile where no rain falls? What name is given to such land? In the southern part of South America the winds blow toward the east, hence in that section we find arid regions *east* of the Andes.

Along the greater part of the Amazon on both sides there are vast forests so thick with trees, tall ferns, and climbing vines that men can scarcely force their way through. These forest-plains are called *silvas.* People who live in some parts of these forests must dwell in boats during the season of the floods, or live in the tree tops like monkeys. Name the largest northern branch of the Amazon River. The largest southern branch.

Find the Orinoco River. Along its banks are wide plains much like our prairies. They are called *llanos*. This is the Spanish word for *plains*. In the dry season the llanos are sere and brown, but in the wet season they are covered with grass, and great herds of horses and cattle feed there.

The llanos and the silvas lie in the hot belt. In this belt it is always summer, except in places where the land rises high above the sea level. The seasons in lowlands of the hot belt are the wet and the dry.

Find the Rio de la Plata. *Rio* is Spanish for *river*. It looks like an arm of the sea, and is formed by several large rivers. Name them. Trace the basin of the Rio de la Plata. It has much the same climate as the basin of the Mississippi. On its great plains, which the Spanish call *pampas*, grow corn, wheat, and other grains. Horses, cattle, and sheep are raised in great numbers and add much to the wealth of the country.

A jaguar.

53. RESOURCES AND PRODUCTS.

Do you drink coffee or cocoa with your breakfast? In wet or snowy weather do you wear overshoes made of rubber? Did you ever take quinine when you were sick? These things probably came from some part of South America. Are they animal products, or do they come from plants?

The cinchona tree, from the bark of which quinine is obtained, and the rubber tree grow wild in South America. Mahogany and other hard-wood trees, palms, and plants that yield medicines and dyestuffs also grow in South America. Flowering vines and water plants, and bright-colored birds and insects, make the forests beautiful.

Coffee and cocoa grow best in the hilly regions of the hot belt. In this belt, also, are raised sugar, cotton, and tapioca. In the cool belt farther south great quantities of wheat and other grains are grown. From the herds that pasture on the plains come hides, tallow, and other cattle products.

There are many wild animals in the highlands and forest plains of South America. The fiercest beast of prey is the jaguar, which belongs to the cat family. Here are large snakes, called boa constrictors, which crush out the lives of animals by coiling around them. Lively troops of monkeys chatter in the tree tops, alligators swarm in the streams, and among the peaks of the Andes soars the condor, the largest bird of flight known. The grassy lowland plains are well fitted for the raising of horses, cattle, sheep, and other domestic animals.

A train of llamas.

In the Andes Highland the llama, which is an animal of the camel kind, is used to carry goods across the mountains. It is a little larger than a sheep. The alpaca also is found in the high-

land region. It is valued on account of its fine, glossy wool.

The Andes Highland has long been famous for its silver mines. There are also rich mines of gold and copper. Along the Pacific coast there are beds of nitrates, which are exported in large quantities, and used in making fertilizers and gunpowder. In the Eastern Highland there are noted diamond mines.

Map Studies.—What countries of South America border on the Caribbean Sea? On the Atlantic Ocean? On the Pacific Ocean? Which two have no seacoast? Which is the largest country of South America? Compare it in size with the United States. (See tables, page 127.) Which is the smallest? Compare it with the State of Washington.

What countries are wholly or partly in the Torrid Zone? What countries are crossed by the Tropic of Capricorn? What zone south of this tropic? What countries are wholly or partly in this zone?

54. PEOPLE AND COUNTRIES.

Soon after the Spaniards discovered the New World, they learned that there was much gold in the great highland region of South America. They sent soldiers, who overcame the Indian tribes and treated them with great cruelty, killing or making slaves of most of them. Ask your teacher to tell you of Pizarro.

Ruins of an ancient Inca building.

These Indians of the Andes Highland were called Incas. They were a brave people, and, like those of Mexico, were partly civilized. They had wise laws. They laid out splendid highways, and built fine bridges and temples of cut stone. Most of the South American Indians of the present day are savages, living by hunting and fishing.

The Spaniards settled near the northern and western coasts of South America, where they built large cities. These Spanish colonists were so badly governed by their mother country that they rebelled and became independent.

The vast tract of country which we know as Brazil was formerly owned by Portugal, a country of Europe, and the language of that country is still spoken there. There are many negroes in the eastern coast countries whose forefathers were brought from Africa as slaves. Slavery, however, no longer exists in America.

The Spaniards and Portuguese are of the white, or Caucasian, race. Of late years many other people of this race have come from Europe and settled in the basin of La Plata River. The commerce, farming, stock-raising, and mining of South America are done by people of the white race. There is but little manufacturing. Notice on the map that most of the cities are near the seacoast.

There are many people of South America that are of mixed races. They are the children of Spanish and Indian parents, or of Indians and Negroes.

All the countries of South America except Guiana are republics. Guiana is divided among the British, the Dutch, and the French.

A coffee plantation.

55. BRAZIL.

Map Studies.—In what part of South America is Brazil? What countries border on Brazil? Which are the only two countries of South America that do not? What river with its branches drains the northern part? The eastern part? The southern part? What and where is the capital? Name three other important seaports.

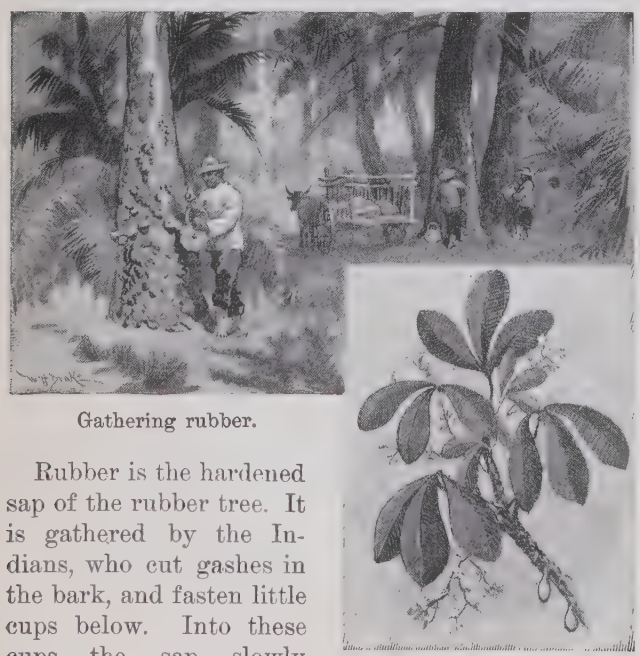
Brazil is about as large as our own country. It lies chiefly in the hot belt. Only a small part of the country is cultivated. Notice that Brazil is crossed by many large rivers.

A large part of Brazil is a highland region, but not of great altitude. On this upland are the plantations that supply nearly half the coffee that is used in the world. This is the chief export. Rubber, hides, tobacco, cotton, and sugar are also exported.

Coffee is the seed of the fruit of a small evergreen tree that thrives best in warm, well-watered upland regions. The blossoms which are very fragrant grow in pure white clusters. The fruit looks something like a small cherry. Each one contains two seeds that are the raw coffee of commerce.

Find *Rio de Janeiro.* It is the capital and largest city of Brazil, and has a fine harbor. You have heard of Rio coffee. It takes its name from this city, which is a great coffee-shipping port. Much coffee is shipped also from *Santos.* Find Santos.

Find *Bahia* and *Pernambuco.* These are the seaports of the sugar, cotton, and tobacco regions. Find *Para.* From Para we get rubber and other products of the Amazon river basin.



Gathering rubber.

Rubber is the hardened sap of the rubber tree. It is gathered by the Indians, who cut gashes in the bark, and fasten little cups below. Into these cups the sap slowly trickles. When enough is gathered it is hardened in the smoke from a fire of palm nuts, and is then ready for export. In our country, what is made of the sap of the pine tree? Of the sugar maple tree?

56. ARGENTINA.

Map Studies.—What ocean east of Argentina? What country lies between Argentina and the Pacific Ocean? What important river drains the northern part? By what two rivers is it formed?

Argentina is in the southern warm and cool belts. It is nearly one third as large as the United States. Its surface slopes from the Andes Highland to the Atlantic Ocean. Where do we find the coldest parts of this country? Of our own country? The southwestern part of Argentina is arid. Why? (See page 78.)

You have learned about the pampas with their millions of cattle and sheep. What do you think, therefore, should be a leading export of this country? The river valleys in the northern part of Argentina are fine grain-growing lands, and much wheat also is exported.

Traveling on the pampas.

Many white people have come from Europe, and have settled here as farmers and herdsmen. Thousands of miles of railroad have been built to transport their grain and cattle products to the seaports.

Find *Buenos Ayres.* This is the capital and chief commercial center of Argentina, and the largest city in South America. The harbor is not naturally a very good one, but has been much improved. The city is connected by railroad with Valparaiso on the Pacific coast.

57. PARAGUAY AND URUGUAY.

Map Studies.— In what river basin are Paraguay and Uruguay? What branch of the Rio de la Plata is south of Paraguay? What branch is west of Uruguay?

Paraguay and Uruguay are sometimes called La Plata countries. Why? They are thinly settled and are but slowly increasing in population. The raising of horses and cattle in Paraguay and of sheep and cattle in Uruguay is the chief industry.

Much wheat is grown in Uruguay. Paraguay has immense forests of valuable timber, and rich beds of iron ore and marble, which, however, are not worked. In the latter country mate, or Paraguay tea, is an important product, and thousands of tons are exported.

Mate drinking — plant and utensils.

Paraguay tea is drunk by a great many South American people. It is made by pouring hot water upon the dried leaves of a kind of holly. The people drink this tea through a tube about eight inches long, on the end of which is a strainer. It is the custom to pass the vessel containing the tea, together with the tube, from mouth to mouth. The taste of the tea is very different from that of the tea which we use. Where does our tea come from?

Find *Montevideo.* It is the capital and chief commercial city of Uruguay. This country, though the smallest of the South American republics, ranks high in the value of its foreign commerce. It is about the size of the state of Wyoming. What is the capital of Paraguay?

58. CHILE.

Map Studies.—In what part of South America is Chile? What countries are west of it? What mountain range separates them from Chile? What high peak near the center of its eastern boundary?

Chile is a long, narrow strip of land lying along the western slope of the Andes Highland. It extends from Peru to Cape Horn, a distance of more than 2500 miles.

Tell why there are desert regions in the northern part of Chile, while the central and southern parts have enough rain. (See page 78.) The rivers of Chile are short, rapid streams. The water of many of these streams is used for irrigation, and much wheat is raised.

Nitrates are the most important product of Chile, and great quantities are exported. What use is made of nitrates? In some parts of Chile there are thousands of acres of nitrate or saltpeter beds, eight or more feet in depth.

A street in Santiago.

Chile has made great progress. Its cities, like ours, have telegraphs, telephones, and street cars. *Santiago*, the capital, is the largest city west of the Andes. Its seaport is *Valparaiso*, which is the most important commercial city on the Pacific coast of South America.

The lowlands along much of the western coast of South America are hot and unhealthful. For this reason many of the large cities like Santiago, Lima, Quito, and others, are built on the interior uplands, and are connected by railroad with their seaports.

Native boats on Lake Titicaca.

59. PERU AND BOLIVIA.

Map Studies.—What countries border on Peru? On Bolivia? Which of the two has no seacoast? What lake lies between Peru and Bolivia? What large river receives most of its water from the eastern slopes of these countries? What name is given to the plateau that forms a part of Bolivia and Peru?

Peru and Bolivia lie in the hot belt, but the altitude of much of the surface is so great that the climate is cool and pleasant. Like most other Andean countries, the western slopes are rainless, while on the eastern slopes the rainfall is very heavy.

Peru has a number of good harbors, and next to Chile is the most important Andean country. It exports silver, gold, sugar, cotton, rubber, and wool. The commerce of Bolivia is chiefly through ports of Peru and Argentina. The chief wealth of this country is in its mines of tin and silver. Cinchona and rubber are gathered in the vast forests of the eastern slopes.

More than one half of the people of Peru and Bolivia are Indians and mixed races. Many of the Indians are still uncivilized. What have you learned in this book about the Incas?

Find *Lima*. It is the capital and chief city of Peru. Its houses are low so as not to be shaken down by earthquakes. They are built chiefly of sun-dried bricks. Six miles west of Lima is the seaport of *Callao*. The largest city of Bolivia is *La Paz*. The capital, *Sucre*, is near the rich silver mines of Potosi.

60. ECUADOR, COLOMBIA, AND VENEZUELA.

Map Studies.—In what part of South America are these countries situated? Which of them border on the Caribbean Sea? On the Pacific Ocean? What two are crossed by the equator? What gulf south of the Isthmus of Panama? What lake in Venezuela? What group of islands west of Ecuador? What two large rivers drain these countries?

In what belt do these three countries lie? How do you know this? Is it very hot in all parts of this region? Where is it coolest? *Ecuador* is the Spanish word for *equator*.

River scenery in Ecuador.

In these countries there are few good roads, hence there is much fertile land that is not farmed because there is no way of getting the products to market. Coffee, cocoa, bananas, rubber, and cattle products are the chief exports. Colombia and Venezuela have rich gold mines.

What is the capital of Colombia? Is it in a highland or a lowland region? *Bogota* has suffered from earthquakes. Find *Caracas*, the

capital of Venezuela. It is connected by railway with the seaport of *La Guaira*.

Partly civilized Indians — Napos.

There are more than a million Indians in Ecuador, Colombia, and Venezuela. Most of these are in Ecuador, and are still savage. Many of the Indians of Venezuela are partly civilized. Find *Quito*, the capital and chief city of Ecuador. You can see by the map that it is near the equator, yet it is so high above the sea level that the climate is as cool as ours is in spring. *Guayaquil* is the principal commercial city, but the commerce of Ecuador is not very extensive. Cocoa is the chief export.

Quito is about two miles above the level of the sea. There are many snow-clad peaks to be seen from the city. The houses are built low, like those of Lima. An important business in Quito is water-carrying. Much of it is brought a long distance.

61. GUIANA.

Map Studies.—What ocean north of Guiana? How is the country divided? What does the relief map show in regard to its surface? Name the capital of each division.

Guiana is divided into three colonies that are owned by the English, the French, and the Dutch. There are rich gold mines in the highlands, and much sugar cane is raised on the hot, low coast lands. Many French convicts are sent to French Guiana.

TEST AND REVIEW QUESTIONS.

51. In what hemisphere is South America? In what latitude? How do you know this? In what zones does it lie? What have you learned about the climate? What noted cape, strait, and island at the southern end? What connects South America with North America? How do they compare in size? How do their coast lines differ?

52. Where is the great highland region of South America? What is it called? How does it slope on the west? On the east? How is the eastern slope broken? In what general way does the surface of South America resemble that of North America? What is a volcano? Where are volcanoes numerous in South America? What is an earthquake? Where does the most rain fall in South America? Why? What large rivers does it feed? What have you learned about the Amazon? Where are the arid or dry regions? Why are they arid? Locate the llanos. The silvas. The pampas. How do these great plains differ?

53. What are the most important plant products of South America? Name some of the wild animals. Domestic animals. Where are the latter principally raised? What are cattle products? What are the chief minerals?

54. What led to the conquest of a large part of South America by the Spaniards? What portion was seized by the Portuguese? From what countries of Europe did these people come? Who were the Incas? What of the present tribes of Indians? Of the Negroes? What are mixed races? Where have many white people settled of late years? What are such settlers called? Where do we find most of the large cities? What government have the South American countries? What languages are spoken?

55. Compare Brazil in size with the United States. What is the leading product? What else is exported?

56. Compare Argentina in size with the United States. What have you learned of its population? What does Argentina raise and export most largely? What of its railroads?

57. Why are Paraguay and Uruguay called La Plata countries? What is the chief product of Uruguay? What of its commerce? Its size? What is an important product of Paraguay? What have you learned about this?

58. What is Chile's most important mineral product? How is it obtained? For what used? What have you learned of the progress of Chile?

59. What does Peru export? What is the chief wealth of Bolivia? How is its commerce carried on? Why? What of the people of these countries?

60. Name the leading exports of Ecuador, Colombia, and Venezuela. Why is but little farming done in these countries? What is said of mining in Colombia and Venezuela? In what zone are these countries? What would their climate naturally be? What have you learned of the climate of Quito? Why is this?

61. To what nations does Guiana belong? Name some of its products. What is meant by "convicts"?

Relief Map of EUROPE.—Twice the Scale of North America, South America, Asia, Africa, and Australia.

62. POSITION—EXTENT—COAST LINE.

Europe is not much larger than the United States. The northern part lies in the North Frigid Zone, while the rest of the grand division extends across the cool belt and into the warm belt of the North Temperate Zone.

In what zone is southern Europe? The United States? Should we expect to find somewhat the same climate in each? The climate of many of the countries of Europe, however, is much warmer than that of countries in North America that lie in the same belt. The reason for this is that the warm southwest winds from the Atlantic Ocean blow over a large part of the surface. The hot winds from Africa also reach southern Europe and thus add to the warmth of this region.

A castle on the Rhine.

Much of the warmth of the Atlantic Ocean west of Europe comes from the *Gulf Stream*. This is the best known of the ocean currents. What have you learned about ocean currents? (See page 23.) The water of the Gulf Stream, warmed in the hot belt, flows along the Atlantic coast of the United States and then spreads out toward the western coast of Europe. The winds blowing over this wide warm surface take up much of its heat and carry it over the land.

The coast line of Europe is very much broken, and large arms of the sea run far inland. Between Europe and Africa lies the greatest and most important inland sea of the world. What is it called? Its name means "the middle of the earth or land." What strait joins it to the Atlantic Ocean? In what way is this sea connected by water with the Indian Ocean? (See map, page 37.)

Find the Adriatic Sea; the Ægean Sea; the Black Sea. These are arms of what sea? What two straits and sea connect the Black Sea and the Mediterranean? Find the Bay of Biscay. The Irish Sea. The North Sea. The Baltic Sea. What two gulfs are arms of the Baltic Sea? What sea in the north is an arm of the Arctic Ocean?

Europe has many peninsulas. The country between the Adriatic and the Black Sea is called the Balkan Peninsula. Trace its outline. Find the Italian Peninsula. What waters surround it? Find the Spanish Peninsula. What waters surround it? Find the Danish Peninsula. In what way does this differ from the other peninsulas of Europe? Find the Scandinavian Peninsula. What bodies of water border on this peninsula?

Europe and Asia together form one vast land mass which is sometimes called *Eurasia*. How is this name formed? The whole of the grand division of Europe may be considered a peninsula, forming the western part of Eurasia.

What important group of islands is west of the mainland of Europe? What narrow passages of water separate the largest one of these islands from France? What island northwest of the British Isles? There are three large islands in the Mediterranean Sea near Italy. Name them. What small island south of Sicily? What two islands at the eastern end of the Mediterranean Sea?

63. SURFACE AND DRAINAGE.

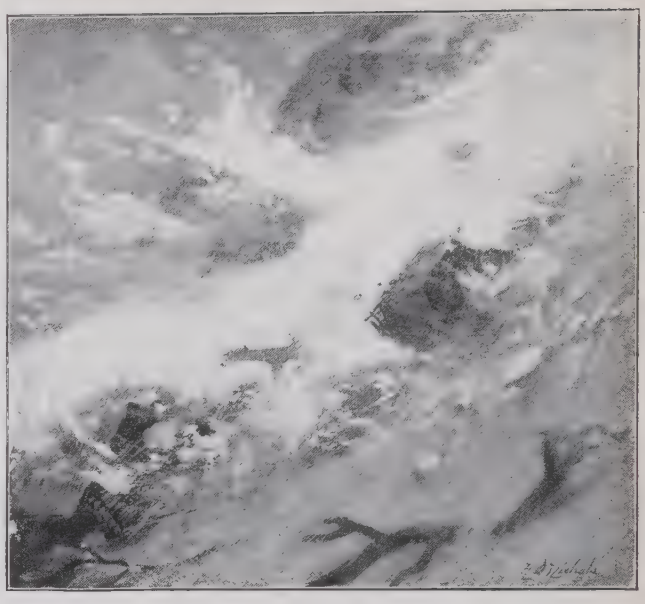
On the relief map of Europe find the Caucasus Mountains, the Balkan Mountains, the Carpathian Mountains, the Alps, and the Pyrenees. These rise from the highlands of southern Europe and form a chain, more or less broken, from the Caspian Sea to the Atlantic Ocean. This region is known as High Europe. Find Mont Blanc. It is the most noted peak of Europe.

The three great southern peninsulas of Europe are parts of this highland region. What mountain range or spur forms the "backbone" of Italy? What peninsula in the northwest is a highland region? Name its chief mountain range. What low range forms part of the boundary between Europe and Asia?

Notice that the greater part of Europe is a plain. It is known as Low Europe, and is shaped somewhat like a vast basin with a broken mountain rim. Trace this rim on the map. Beyond the Ural Mountains this plain stretches in an almost unbroken level across northern Asia to the Pacific Ocean.

There are many glaciers among the Alps. What have you learned about glaciers? The glaciers of the Alps do not reach the sea and break off in icebergs, as in Alaska and Greenland. They move slowly down the mountain ravines into the green valleys and melt away under the warm sun. Several rivers of Europe have their sources in the melting glaciers of the highland region.

The summits of the Alps and the Caucasus Mountains are so high as to be covered with snow. Sometimes far up on the mountain side a patch of snow becomes loosened and starts to slide down the steep slope. It gathers more and more snow, and its speed becomes greater and greater on its downward way. Huge rocks are torn from their beds, and large trees are broken off like twigs, until at last the whole mass plunges with a crash into the valley below.



An avalanche.

Such a snowslide is called an *avalanche*. Sometimes an entire village is destroyed by an avalanche.

The largest river of Europe is the Volga. It is an important highway of trade, and is connected by canal with the northwestern waters. Into what sea does it flow? The Caspian Sea has no outlet. Is the water of this sea fresh or salt? (See page 47.) What becomes of the large amount of water that is poured into the Caspian Sea by the Volga and other rivers? Name two large rivers that flow into the Black Sea. Which of them cuts through mountain ranges on its way?

The most noted river of Europe is the Rhine. Its source is among the glaciers of the Alps, and it flows through some of the most beautiful scenery in the world. In places its course is between vine-clad hills and steep rocky heights on which are many old and famous castles. (See picture on page 87.)

In what part of the map of Europe are the most lakes shown? Name the largest two. There are many small clear lakes in the Alpine region, which add greatly to the beauty of the scenery. They are visited by people from all parts of Europe, and from our own country.

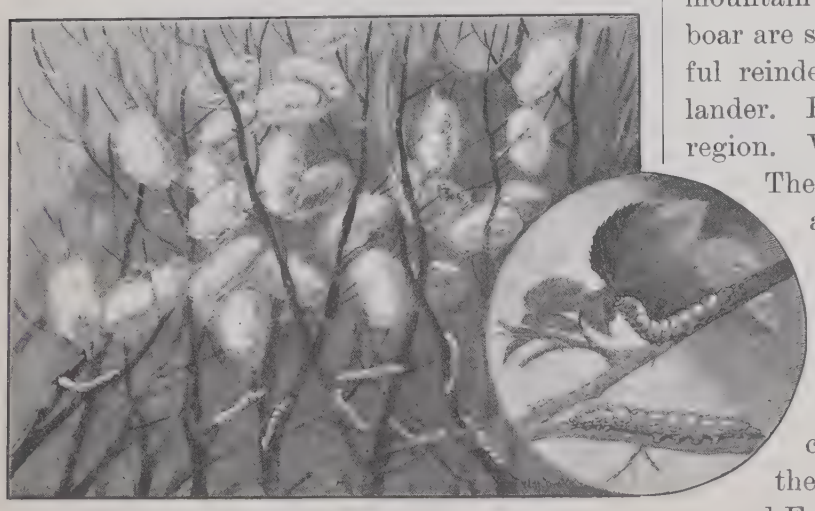
64. RESOURCES AND PRODUCTS.

Notice on the map of Europe where the parallel marked 40° crosses the Mediterranean Sea. Look at the map of our own country and you will see that the same parallel passes some distance south of New York and Chicago. We know by this that these cities are about as far north of the equator as the northern shore of the Mediterranean Sea, and are, therefore, in the same belt.

Do oranges, lemons, olives, figs, and almonds grow well near New York and Chicago? Why? Yet these grow freely along the Mediterranean coast of Europe. We have learned that there may be a great difference of climate in different parts of the same belt. Sometimes, as we have seen, this is caused by difference in altitude, but in this case there are other reasons.

We have learned that warm winds from the Atlantic Ocean and from Africa blow over southern Europe. More than this, there are high mountain chains inland which shelter the coast lands from the cold winds of the north. Hence these lands have plenty of warmth and moisture, and for this reason the plants of the warm belts thrive in this region.

Did you ever see a caterpillar spinning a cocoon? Here is a picture of silkworms and of the cocoons which they make. The worms feed on the leaves of the mulberry tree. These trees in great numbers are grown in the south of Europe, and much silk is produced. Find out from what other countries we get silk.



Silkworms and cocoons.

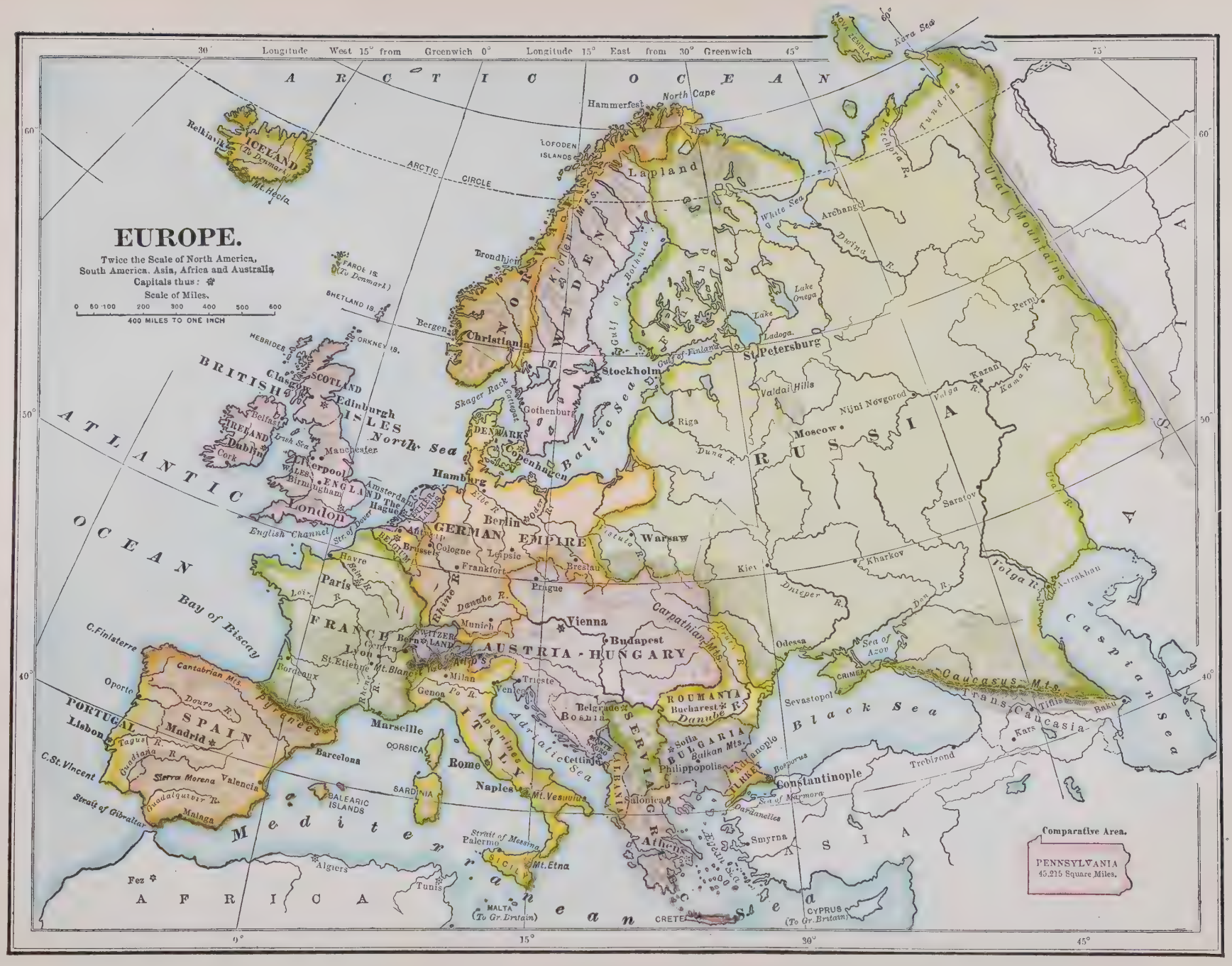
The silkworm spins a fine thread of silk, something like that of a spider's web. This thread it winds around itself, forming a cocoon. In time the worm bursts the cocoon and comes out as a moth with wings, just as you may have seen a butterfly come out of a cocoon which it spun when it was a caterpillar.

Find on the map of Europe the parallel marked 50°. South of this parallel is the country of the grape. What are made of grapes? The southern part of Europe, also, is the great wheat belt in which more wheat is raised than in the United States.

About one fourth of Europe is still covered with forests. The people there are much more careful of the trees than we are in our country. In the coast waters are plenty of fish. The best fishing grounds are in the North Sea. In the Mediterranean fine sponges are found, and also the red coral which is used in making jewelry.

Europe has been so long settled, that most of the wild animals have been replaced by the usual domestic kinds. What are they? In the mountain regions the bear, deer, wolf, and wild boar are still found. In the far North the useful reindeer is the chief wealth of the Laplander. Fur-bearing animals are found in this region. What is the climate?

The most important minerals are coal and iron. These are mined in almost every country in Europe. There are also rich mines of lead, salt, copper, zinc, and petroleum. Gold and platinum are found in the Ural Mountains. The manufactures and commerce of Europe surpass those of the United States. England, Germany, and France lead in these industries.


EUROPE.
Twice the Scale of North America, South America, Asia, Africa and Australia.
Capitals thus: ✲
Scale of Miles.
0 50 100 200 300 400 500 600
400 MILES TO ONE INCH
Longitude West 15° from Greenwich 0° Longitude 15° East from Greenwich
ARCTIC OCEAN
ATLANTIC OCEAN
Mediterranean Sea
Black Sea
Caspian Sea
Kara Sea
NOVA ZEMBLA
North Cape
Hammerfest
LOFODEN ISLANDS
ARCTIC CIRCLE
Reikiavik
ICELAND
To Denmark
Mt. Hecla
FAROE IS. (To Denmark)
SHETLAND IS.
ORKNEY IS.
HEBRIDES
Trondhjem
Bergen
Christiania
Stockholm
Gulf of Bothnia
Gulf of Finland
St. Petersburg
Lapland
White Sea
Archangel
Dwina R.
Pechora R.
Tundras
Ural Mountains
Lake Onega
Lake Ladoga
Perm
Kazan
Kama R.
Volga R.
Nijni Novgorod
Moscow
Valdai Hills
Riga
Duna R.
Dnieper R.
Saratov
Astrakhan
Volga R.
Don R.
Kharkov
Kiev
Warsaw
Vistula R.
Berlin
Breslau
Prague
Leipsic
Frankfort
Cologne
Brussels
Amsterdam
The Hague
Hamburg
Elbe R.
Oder R.
Copenhagen
Gothenburg
Skager Rack
Cattegat
Baltic Sea
North Sea
English Channel
Str. of Dover
Havre
Paris
Seine R.
Loire R.
Rhine R.
Danube R.
Vienna
Budapest
Munich
Carpathian Mts.
Odessa
Sea of Azov
Crimea
Caucasus Mts.
Trans-Caucasia
Tiflis
Baku
Kars
Sevastopol
Trebizond
Constantinople
Sea of Marmora
Dardanelles
Bosporus
Smyrna
Asia Minor
Athens
Salonica
Belgrade
Bosnia
Servia
Roumania
Bucharest
Sofia
Philippopolis
Bulgaria
Balkan Mts.
Adriatic Sea
Trieste
Venice
Milan
Genoa
Turin
Switzerland
Geneva
Lyons
St. Etienne
Mt. Blanc
Alps
Bordeaux
Marseille
Corsica
Rome
Naples
Mt. Vesuvius
Sardinia
Balearic Islands
Barcelona
Valencia
Madrid
Lisbon
Oporto
Cantabrian Mts.
Pyrenees
Douro R.
Tagus R.
Guadiana R.
Guadalquivir R.
Sierra Morena
C. Finisterre
C. St. Vincent
Straits of Gibraltar
Algiers
Tunis
Fez
Africa
Palermo
Strait of Messina
Sicily
Mt. Etna
Malta (To Gr. Britain)
Crete
Cyprus (To Gr. Britain)
Scotland
Edinburgh
Glasgow
Belfast
Ireland
Dublin
Cork
Irish Sea
Manchester
Liverpool
Wales
Birmingham
England
London
Netherlands
Antwerp
Brussels
Cologne
Leipsic
Frankfort
Prague
Breslau
Warsaw
Kiev
Kharkov
Saratov
Astrakhan
Odessa
Sea of Azov
Crimea
Caucasus Mts.
Trans-Caucasia
Tiflis
Baku
Kars
Sevastopol
Trebizond
Constantinople
Sea of Marmora
Dardanelles
Bosporus
Smyrna
Asia Minor
Athens
Salonica
Belgrade
Bosnia
Servia
Roumania
Bucharest
Sofia
Philippopolis
Bulgaria
Balkan Mts.
Adriatic Sea
Trieste
Venice
Milan
Genoa
Turin
Switzerland
Geneva
Lyons
St. Etienne
Mt. Blanc
Alps
Bordeaux
Marseille
Corsica
Rome
Naples
Mt. Vesuvius
Sardinia
Balearic Islands
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Valencia
Madrid
Lisbon
Oporto
Cantabrian Mts.
Pyrenees
Douro R.
Tagus R.
Guadiana R.
Guadalquivir R.
Sierra Morena
C. Finisterre
C. St. Vincent
Straits of Gibraltar
Algiers
Tunis
Fez
Africa
Palermo
Strait of Messina
Sicily
Mt. Etna
Malta (To Gr. Britain)
Crete
Cyprus (To Gr. Britain)
Comparative Area.
PENNSYLVANIA
45,215 Square Miles.

Map Studies.—What grand division lies east of Europe? What ocean north? What sea south? Beginning at the northeast, name the natural boundaries between Europe and Asia. Find the Arctic Circle; what part of Europe lies north of this? In what zone is this part? In what zone is the remainder of Europe? How do you know? What country of Europe is larger than all the others combined? Name two countries of Europe that are not reached by the Atlantic Ocean or its arms. Name the peninsular countries. The island empire.

65. PEOPLE AND COUNTRIES.

There are five times as many people in Europe as there are in the United States. More than half of them are engaged in farming, yet there are many countries so thickly settled that they do not raise food enough to feed their own people. They buy from the United States and from other countries great quantities of meat, grain, cotton, and other things that they need.

Most of the people of Europe belong to the white race. In the southeastern part of this grand division there are many people of the yellow race. Find Turkey on the map. The people of Turkey belong to the yellow race. A few yellow people, called Laplanders, live near the shores of the Arctic Ocean.

For many centuries the people of Europe have been more highly civilized than those of the other continents. The first settlers of America came from Europe, and millions of their children and children's children have since found homes in the New World.

An emigrant steamer leaving Europe for America.

People who leave their own country to settle in another are called *emigrants* in the country which they leave, and *immigrants* in the country where they settle. Do many immigrants come into the United States? Do many emigrants leave our country? Why?

If we travel over the United States from north to south, and from east to west, we shall find that nearly all the people speak the same language, wear the same kind of clothes, and have the same ways and manners. If we travel in Europe, however, we shall find many kinds of people that differ very much from one another in various ways.

In what country of Europe do the people speak the same language that we do? We make a short trip from that country across the Strait of Dover. What language do we hear when we land? We take a train from Paris to Berlin. At the borders of France we hear one language; in a few minutes we pass the boundary line and find another language spoken. What is it? In each country that we pass through we notice differences in language, in dress, and in manners. To what race have we learned that most of the people of Europe belong?

There are more than twenty independent nations in Europe, some of which are very small. Most of these countries are monarchies. What is a monarchy? France, Switzerland, and Portugal are republics. What is a republic? Name the greatest republic in the world. The principal countries are Great Britain, Germany, France, Russia, Austria-Hungary, and Italy. They are called the *Great Powers* of Europe.

American and English steamers meeting in mid-ocean.

66. HOW WE REACH EUROPE.

Europe is the most important part of the *Old World* with which we have to do. Let us see how we can best reach this grand division from our own country. We can go by steamer from Portland, or Boston, or New York, or Philadelphia, or Baltimore. As most of our people start from New York when they go to Europe, we will take a steamer from that city.

We go on board of the vessel as she lies at the dock. Our friends who came to see us off have said good-by and have gone ashore. A little tugboat comes puffing up, and pulls the great ship out into the harbor, and past other vessels, toward the sea. Soon the tugboat leaves us, our engines are started, and our steamer has fairly begun her voyage of three thousand miles.

In a few hours we are out of sight of land and can see nothing around us but the sea and sky. We watch the sun as it seems to sink slowly into the water west of us. In time we are called to a meal, and when that is over the darkness has come, and we go to our stateroom to pass our first night at sea.

Next morning when we come on deck we are far out on the ocean. On the following day we catch sight of many small vessels. Their crews are fishing for cod and halibut. We are told that we have reached the "banks" of Newfoundland. What have you learned about these banks? Thus far we have been sailing northeast. Our ship is now headed more toward the east.

Before the day is over we see an iceberg. What have you learned about icebergs? It has broken away from the icy shores of Greenland, and is drifting slowly southward, melting as it goes. The one we see is many times larger than our vessel. It looks like a great church with towers and steeples, and in the bright sunlight it flashes and gleams with all the colors of the rainbow. Many a fine ship has been sunk by running into an iceberg in the darkness of night or in a fog.

Thus day by day for nearly a week we sail eastward. We find much to interest and instruct us. Sometimes it is a large whale floating lazily upon the surface of the water. What do we get from whales? We see clearly on every side the line where the sea and sky appear to meet. What is this line called? We

notice above the sky line the topmasts of distant vessels and the smoke of steamers that are still farther away, while their hulls are hidden from us by the roundness of the earth.

At last we see in the distance what looks like a bank of clouds low in the sky. We are told that this is land. As we get nearer we see that it is beautiful green country. It is Ireland. The steamer enters a fine harbor and drops anchor. We have reached Queenstown, a seaport of Ireland. *We are in Europe.* After a short stay the steamer goes on to Liverpool, in England, and here our voyage ends. Find on the map all the places named.

67. BRITISH ISLES.

Map Studies.—Where are the British Isles? (See map of Europe, page 90.) The largest island of the group is called Great Britain. What are its three divisions? What is the name of the other large island? What three groups of small islands are north of Scotland? What waters separate the British Isles from the mainland of Europe? What waters separate England from Ireland? What name is given to the southwestern point of England? Mention a cape of Spain whose name has the same meaning.

The British Isles are the home of one of the greatest nations of the earth. About one fifth of all the land on the globe is owned by this nation, and one fourth of all the people in the world are under its control.

The British Isles are known as the United Kingdom of Great Britain and Ireland. The other British possessions are large parts of North America, Africa, and Asia, a small part of South America, the whole of Australia, and many islands in both hemispheres. All these together form the vast *British Empire.*

The people of the British Isles, like those of our own country, choose certain persons to make their laws. The chief ruler, however, is not elected like our President, but holds this office as being the head of the royal family. After his or her death usually the oldest son becomes king. What is such a government called?

The present ruler of the British Empire is King George V. He is entitled "King of Great Britain and Ireland, and Emperor of India." What ruler did he succeed? Where is India?

England is the most important part of the British Isles, and is the seat of government of the empire. It has a dense population and many large cities. Its rich mines of coal and iron have made it a great manufacturing country. It has more ships than any other nation,

and these carry its manufactures to all parts of the world, and bring back the products of all other countries.

Great Britain is one of the countries of Europe that cannot raise food enough for all its people, and has to depend, therefore, upon other sources for a supply. What food products does Great Britain get from us?

The trade of the British Empire centers in the great city of *London*, the largest in the world. What is the second largest city in the world? Find these two cities on the map (pages 36 and 37), and tell on what waters you sail from one to the other.

Windsor Castle.

There are nearly as many people in London as there are in the whole of New England. Its streets, if placed end to end, would more than reach across the United States from east to west. It is a very old city, and is full of objects and places of interest.

Find *Liverpool*. It is a great commercial city, and its docks, filled with shipping, extend for miles along the river Mersey. It has a large trade with the United States. Find *Manchester* and *Birmingham*. They are large manufacturing centers. The former is the greatest cotton-spinning city in the world; the latter is noted for iron and steel goods.

The mountain regions of Great Britain are found chiefly in Scotland and Wales. The hills, glens, and lakes of these sections are noted for their beautiful scenery. *Edinburgh* is the seat of the local government of Scotland, and *Glasgow* on the Clyde is its chief city. Many steel vessels are built along the Clyde.

Lakes of Killarney, Ireland.

Across the Irish Sea is Ireland. Much of its surface is covered with rich, green grass, which has given it the name of the "Emerald Isle." Many people from Ireland have found homes in America. The chief cities are *Dublin* and *Belfast*. The latter is the center of the linen trade. From what is linen made?

68. THE EMPIRE OF GERMANY.

Map Studies.—In what part of Europe is the German Empire? Locate it on the relief map of Europe, and describe its surface. Tell by its rivers how most of the surface slopes. What large river drains the southern part? Into what water? Name the countries that border on the German Empire. What waters north?

The Empire of Germany consists of a number of states united under one government. It is considerably smaller than the state of Texas, yet it has about three fourths as many people as the whole United States. Germany owns large tracts of country in Africa.

The most important division of Germany is the Kingdom of Prussia. The King of Prussia is also Emperor of Germany. He is sometimes called the *Kaiser*. Who is the present Kaiser?

Germany is a great farming country. Much wine is produced by the vineyards, and it supplies most of Europe with sugar, made from the sugar beet. What other plants yield sugar? How is it made?

The southern highland region of Germany is covered with forests, and in many parts of the empire there are rich mines of coal, iron, and zinc, which help to make it a great manufacturing country also.

The Germans are a saving and industrious people. They are fond of music, and are well educated, as every child is obliged by law to go to school. They are also a nation of soldiers. Every able-bodied young man is made to serve from one to three years in the army or navy.

A German military review.

There are towns in Germany where nearly all the people work at making dolls for American children. In many villages in the forest regions, almost every man, woman, and child is busy carving, gluing, and painting toys. Each family, as a rule, makes but one kind of toy.

The Rhine is the most noted of the German rivers. What have you learned of this river?

A street in Berlin — "Unter den Linden."

Find *Berlin*. It is the capital and largest city of the German Empire, and is one of the most beautiful cities in the world. It is a great center of books and learning. Find *Hamburg*. It is the chief commercial port of Europe outside of the British Isles. What city of Germany makes a celebrated perfumery?

69. FRANCE.

Map Studies.—In what part of Europe is France? Describe its surface as shown on the relief map of Europe. What is its general slope? What waters separate it from England? What countries are on its eastern border? What sea and country south? What mountain range? What bay west? Name the three principal rivers.

If we visit France, we shall see a rich and beautiful country beneath a sunny sky. The French are careful farmers and raise good crops. In the northern part, wheat and the sugar beet are largely grown. In the south, the vine and the olive and the mulberry tree flourish. France is the greatest wine-producing country in the world. Of what use are the olive and the mulberry tree?

The French are also skillful workmen, and some of the finest goods in the world are made in their country. They lead in the manufacture of cloths, especially silks and velvets.

France has large possessions in Africa and Asia. Find Corsica. This island belongs also to France. What country in South America is a French colony? What have you learned of the government of France?

Paris is generally thought to be the most beautiful city in the world. It has broad, clean, well-paved streets, splendid palaces and churches, and gardens, trees, and statues on every side. The people are gay and full of life. Many persons from our own country go to Paris to study music and art.

A street in Paris.

Paris lies on both sides of the river Seine, and is the railroad center of France. It is the second city of Europe in population. Which is the first?

Find *Lyon*. Most of the French silk goods are made here. Find *Marseille*. It is the chief seaport. What do you think would be its leading exports?

70. RUSSIA.

Map Studies.— In what part of Europe is Russia? How does it compare in size with the other countries of Europe? With the United States? (See table, page 127.) Name all the countries that border on Russia. All the bodies of water. Describe the surface of Russia from the relief map. In what two directions does it slope? Find the main watershed. Name and locate the largest river. What mountains and river separate Russia from Asia?

Russia is a part of the great Russian Empire, which includes the eastern half of Europe and the northern half of Asia. Its ruler is called the *Czar*. The people now have some part in the government.

Find *Odessa* and *St. Petersburg*, and trace on the map a voyage by sea from one city to the other. Why has Russia but a small coasting trade? The railroads and rivers, however, provide ample ways for inland trade. The rivers are so joined by canals that it is possible for vessels to pass from the southern waters to those of the north and east.

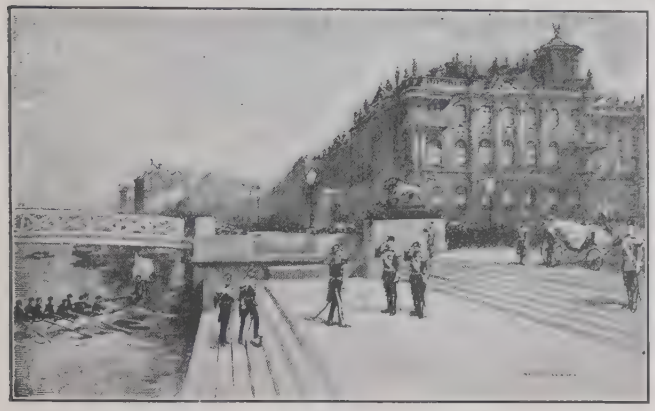
The chief industry of Russia is farming. In the almost treeless plains of the south are great wheatfields and immense herds of horses, cattle, and sheep, which supply grain and meat for other parts of Europe. Much rye is grown for bread, and flax for linen and linseed oil. Gold is mined in the Ural Mountains, and petroleum is found in abundance on the shores of the Caspian Sea. Where else is petroleum found?

Russian women harvesting.

North of the grain region is the great forest belt of hard woods and evergreens. Beyond these, stretching to the frozen ocean, are the Arctic plains, the home of the reindeer and of many animals that are hunted for their furs.

The wide plains of southern Russia are called *steppes*. Here the summers are very hot and the

winters very cold. Near the Arctic Ocean the ground freezes to a great depth. When the surface thaws during the short summers, the water cannot sink into the frozen soil beneath; hence great bogs, or swamps, are formed, called *tundras*.



A palace in St. Petersburg.

St. Petersburg, the capital, is a splendid city, and one of the largest in Europe. It is named after its founder, Peter the Great. No other large city in the world lies so far north. For five months of the year the ground on which the city stands is frozen.

Peter the Great was the most famous of the Russian czars. He decided to build a city at the mouth of the Neva River, and although the ground was low and marshy, his plans were carried out. The foundations of the city rest on piles, or logs, driven into the swampy ground. St. Petersburg suffers greatly from floods.

Odessa is the chief seaport of southern Russia. What do you think should be its chief articles of export? Find *Moscow*. It is the most important city of central Russia.

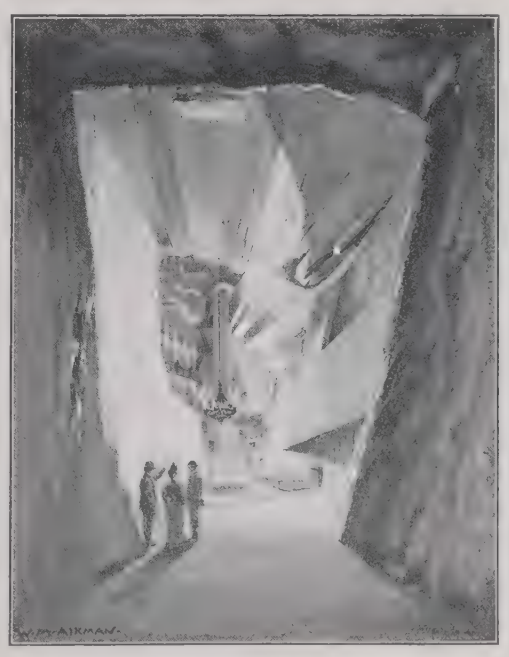
Much of the trade of Russia is carried on by means of fairs. Find *Nijni Novgorod*. The largest fair in the world is held here every summer. People flock by thousands from nearly all the countries of Europe and Asia, and millions of dollars' worth of goods are bought and sold.

71. AUSTRIA-HUNGARY.

Map Studies.—In what part of Europe is Austria-Hungary? What countries surround it? What sea-coast has it? What does the relief map show as to its surface? What mountains in the east? In the west? Name its chief river.

The Empire of Austria-Hungary is larger than any other country of Europe except Russia. It consists of Austria and Hungary united under one government; hence the name. Many of the people speak the German language. In the eastern part are numbers of the yellow race.

The treeless plain of Hungary is one of the great wheat-growing countries of the world. Of what others have you learned? Austria is noted for its salt mines. Grain and wine are exported in great quantities.



An Austrian salt mine.

The largest salt mines in the world are in Austria. Deep in the earth, one above another, are rooms and passages hewn into the salt rock. There are underground chapels, with altars and statues carved from solid rock salt.

In *Vienna*, the capital of the empire, we find a gay, music-loving people, who are proud of their beautiful city. It is nearly circular in shape, and is surrounded by gardens. *Budapest*, the capital of Hungary, is an important grain and flour market.

Find *Trieste*. It is the chief seaport of Austria-Hungary. This country has but little foreign commerce. Why? The Danube River is an important highway of trade with Germany.

72. ITALY.

Map Studies.—In what part of Europe is Italy? What natural division of land does it form? What waters nearly surround it? What countries border on the northern part? What do you learn of its surface from the relief map? What mountains in the north? Name the chief river. Find Sicily and Sardinia. These islands form part of the Kingdom of Italy.

The Kingdom of Italy is, for the most part, a pleasant, sunny land like France—a land of fruits and flowers, of music, painting, and sculpture. Many of the people come to the United States to better their fortunes.

Italy is one of the greatest wine and silk producing countries in the world. From what is wine made? How is silk produced? Oranges, lemons, olives, and other fruits of the warm belts, are raised in abundance. Much wheat is grown in the valley of the Po.

Rome—St. Peter's church in the distance.

There are many famous old cities in Italy. Find *Rome*. Nearly two thousand years ago this city was the center of the great Roman Empire, that ruled over most of the known world. It is full of ancient ruins that show its former glory and wealth. Rome is the residence of the Pope, the head of the Roman Catholic Church. Here, too, is St. Peter's Church—the largest in the world.

Fruit sellers, Naples.

Naples is the largest city. It is the chief commercial city of Italy and has an important trade in macaroni. What is macaroni? Near Naples is Mount Vesuvius, a noted volcano. Find *Venice*. This was once the greatest commercial city of Europe. Find *Genoa*. It is famed as the birthplace of Columbus.

Mount Vesuvius is a grand sight when in eruption. What is an eruption? Many people visit the summit of this volcano when it is safe to do so. Ask your teacher to tell you about the eruption that buried Pompeii. Read also about Venice, where the streets are mostly canals, and where the people go about in boats called gondolas.

A scene in Venice.

An Alpine scene — the Matterhorn.

73. SWITZERLAND.

Map Studies.—In what part of Europe is Switzerland? What countries surround it? What is the nature of the surface? What mountains between Switzerland and Italy? The longest railroad tunnel in the world runs under these mountains. What two rivers rise in Switzerland?

The Republic of Switzerland lies in the heart of the Alps. The scenery is so beautiful that thousands of people from other countries spend their holidays among its mountains, lakes, and glaciers.

The people are called Swiss. They are a busy, independent race. Their country is better for pasturage than for farming, and they make famous cheese. Many of the toys sold in our country are carved by the Swiss.

Have you ever seen St. Bernard dogs? High among the Alps, where the snow lies deep all the year, is a building in which the monks of St. Bernard live. They keep these faithful dogs to help travelers who are lost in the snow.

Find *Geneva.* Many fine watches and clocks are made here. Find *Bern*, the capital of Switzerland.

If we visit Bern we shall see the figure of a bear on the coins, signposts, fountains, and public buildings. The word *Bern* means "bear."

74. SPAIN AND PORTUGAL.

Map Studies.—In what part of Europe are the kingdom of Spain and the republic of Portugal? What natural division of land do they form? What waters surround this peninsula? What mountains separate France from Spain? Name three rivers flowing into the Atlantic. Compare Portugal in size with Maine.

You will remember that Spain furnished Columbus with ships to sail to America, and afterwards seized upon a great part of the New World that he discovered. At that time Spain and Portugal were powerful nations, but they are now of less importance than most of the other countries of Europe. The people are proud, indolent, and fond of dress. Bull-fighting is a favorite sport with all classes.

A Spanish bull-fight.

Most of the peninsula is a high table-land from which rise a number of mountain ranges. Only a small part is fit for farming, and not enough grain is grown to feed the people. Fruit is abundant, and great quantities of wine, raisins, and olive oil are exported. Spain is rich in minerals, and has some of the most productive mines of quicksilver in the world.

Have you ever seen a merino sheep? For what is it noted? This animal is a native of Spain, and millions of merinos graze over its slopes and uplands. Wool, therefore, is an important product. Another important product of Spain is cork. For what is it used?

Stripping cork from the trees.

Cork is the bark of a species of oak tree. When the tree is from three to five years old the bark becomes light and spongy, and is thrown off in flakes. A year or two before the bark would naturally fall off, it is stripped from the tree for market.

Madrid, the capital of Spain, is a walled city. It is built on a barren table-land, but has considerable commerce. The climate of this section is very hot in summer and cold in winter.

Find *Barcelona*. It is the chief seaport. *Lisbon*, the capital of Portugal, has a fine harbor.

Find the Strait of Gibraltar. On this part of the Spanish coast is a promontory called the Rock of Gibraltar. It is held by Great Britain, and is the strongest fortress in the world.

75. THE NETHERLANDS AND BELGIUM.

Map Studies.—In what part of Europe are the Netherlands and Belgium? What do you learn of their surface from the relief map? What countries border the Netherlands? Belgium? What sea washes their coasts? What river flows across the Netherlands? Where is its source?

The word "Netherlands" means "lowlands." The Kingdom of the Netherlands is also called Holland. Most of the country lies in the delta of the Rhine River. What is a delta? Much of the surface is below the level of the sea, and the water is kept back by great embankments, called *dikes*. What kind of soil would you expect to find in the Netherlands?

In this country there is a perfect network of canals. Most of the goods are carried in summer by boats, and thousands of people have no other homes. When these canals are frozen over they become convenient highways for travel, and men, women, and children skate from place to place over their smooth surface.

A Holland canal.

Huge windmills have been built to pump the water from the land into the canals. These mills are of many sizes and shapes, and the whole country seems alive with them. They are made also to grind corn, saw wood, and do many other kinds of work.

The people of the Netherlands are called Dutch. They are good farmers, and are noted for their dairy products. They have had to work hard to keep the sea back from the land, and this constant struggle has helped to make them a patient, industrious, and courageous nation. Many rich islands in the East and the West Indies are owned by the Dutch. From

these they get coffee and spices, in which they have a large trade. The fisheries of Holland are very productive.

The Dutch are noted also for their cleanliness. Let us pass through Rotterdam, which is one of their cities, early in the morning. It is house-cleaning day, and the maidservants, in cotton gowns, white caps, and white aprons, are washing doors, walls, windows, and pavements. Water is dripping and sparkling everywhere. We may well say the city is taking a bath.

Amsterdam is the largest city in the Netherlands. It is an important seaport, and has an extensive commerce. There are canals in many of the streets.

The Kingdom of Belgium is a little larger than the state of Maryland, and is the most thickly settled country of Europe. The soil is fertile, and farming is the chief occupation. There are, however, so many people that much of their food must be imported.

A Belgian milk cart.

Belgium is noted for its manufactures of iron and steel, carpets, and laces. Most of the people speak the French language. Find *Brussels*. You have heard of Brussels carpets and Brussels lace. Some of the latter is worth two or three hundred dollars a yard. Find *Antwerp*. It is one of the great seaports of Europe.

An ancient Norse vessel.

76. THE NORSE COUNTRIES.

Map Studies.—In what part of Europe are Norway, Sweden, and Denmark? What natural division of land is Denmark? Norway and Sweden together? What waters border Norway? Sweden? Denmark?

Norway, Sweden, and Denmark are sometimes called the "Norse countries" because in early times the people were known as Norsemen. They were hardy sailors, and are believed to have visited Greenland and Iceland long before Columbus made his celebrated voyage.

The coast of Norway is much broken. Long arms of the sea extend into the land, and along the shores there are many islands. Find Lapland. What have you read about the Lapps?

The fisheries, forests, and mines of iron and copper form the chief wealth of Norway and Sweden. These two countries were formerly under one king, but now they are separate kingdoms. Denmark is a kingdom. Much of it is a good farming country, and cattle and dairy products are exported. What islands near North America are owned by Denmark?

In speaking generally of the people of these countries, we call them Scandinavians. Many of them have settled in the United States.

Find *Copenhagen* and *Stockholm*. These are the principal cities of the Norse countries.

A Turkish melon seller.

77. THE STATES OF THE BALKAN PENINSULA.

Map Studies.—Find the Balkan Peninsula on the relief map of Europe. What of its surface? The word *Balkan* means "mountains." The seven countries that occupy this portion of Europe are Turkey, Roumania, Bulgaria, Servia, Montenegro, Albania, and Greece. Find each. Name the five seas that border this peninsula. The two straits. What empires north? What large river flows through this section?

The countries of the Balkan Peninsula were once part of Turkey. Greece, Bulgaria, Roumania, Servia, Albania, and Montenegro are now independent.

Turkey in Europe is a part of the once great Turkish Empire. The larger part of this empire is in Asia. The ruler, called the *Sultan*, has great power, but he has granted his subjects some share in the government.

The people of Turkey are very much mixed. The greater part of them belong to the yellow race. They farm in a rude way, and raise cattle. We get from Turkey fine leather, carpets, and rugs, but the manufactures and commerce are not important.

There are many rose farms in Turkey. These flowers yield a costly perfume, called *attar of roses*, which is worth more than its weight in gold.

Grain and cattle are raised in Roumania and Bulgaria. Servia, Albania, and Montenegro are largely covered with forests of oak and walnut, in which vast droves of hogs are fattened. What food do they find in the forest? Find the capital of Roumania, of Bulgaria, of Servia.

Constantinople, the capital of the Turkish Empire, is a large city. It has a splendid harbor, called the Golden Horn, and contains many fine buildings. Many of the streets, however, are narrow, unpaved, and often filthy.

The Kingdom of Greece has, for its size, a longer coast line than any other country in Europe. The surface is rugged and there are many small valleys. The Greeks are skillful sailors, and carry on most of the commerce of the Mediterranean and Black seas. Sponge fishing is an important industry.

Have you ever bought "dried currants" of your grocer? There are thousands of acres in Greece covered with vines which bear small grapes. These, when dried, are called currants. What are raisins?

Athens.

Greece was the home of art and learning in Europe before Rome was built. Under Turkish rule it lost its ancient glory. Find *Athens*, the capital. In this city are many ruins which tell of its former greatness.

TEST AND REVIEW QUESTIONS.

62. In what hemisphere is Europe? In what latitude? In what zones does it lie? Why is the climate of the southern part warmer than that of the United States in the same belt? What kind of a coast line has Europe? Is it favorable to commerce? Why? Name the principal peninsulas. What are the principal islands and groups near the coast of Europe?

63. Where is the main highland region of Europe? What ranges form this highland? What does the remainder of Europe resemble? Name the most noted peak of Europe. What is an avalanche? How does it differ from a glacier? What are the principal rivers of Europe? Which river is noted for its fine scenery?

64. Name the most important plants and plant products of Europe. The animals. Where are the best fisheries? What other sea products are found? Chief minerals? Compare the manufactures and commerce of Europe with those of the United States. Name the countries that lead in these industries.

65. How does the population of Europe compare as to numbers with that of the United States? Why are many countries of Europe compelled to buy food and other products from the United States? What are the principal things that we sell them? To what race do most of the Europeans belong? What other race is there? How do the people compare in civilization with those of other continents? What is the difference between emigrants and immigrants? What languages are chiefly spoken in North America? Name all the languages you can that are spoken in Europe. What kind of government have nearly all the countries of Europe? Name the "Great Powers" of Europe. The principal republics.

66. Read Lesson 66 carefully and then write a story of an imaginary voyage to Europe, giving the name of the steamer, the port from which it sailed, date of sailing, etc., together with any other incidents that might have occurred on the voyage.

67. What is the seat of government of the great British Empire? Where are its main possessions? What portion of the world and its people is under the control of this empire? What part of the empire do the British Isles form? What form of government have they? Which is the greatest city in the world? Name other important cities of the British Isles. Give some account of Ireland. What are the people of England called? Of Ireland? Of Scotland? Of Wales?

68. Of what does the Empire of Germany consist? Compare it in size and population with our own country. What foreign possessions has Germany? What is the chief ruler called? What is the character of the people? What are their leading occupations? Products? Why is Germany a great military nation? What is said of Berlin? Name some other important cities of Germany. What are the people of Germany called?

69. What form of government has France? What are its principal productions? In what does it lead? What foreign possessions has France? Describe Paris. What are the people of France called?

70. Compare Russia in size with the rest of Europe. With the United States. What have you learned of its surface? Its climate? What is the chief occupation of the people? Where is the remainder of the Russian Empire? Why is the domestic commerce of Russia greater than its foreign commerce? Name the leading products. Describe the capital and tell how and by whom it was built. What are the people of Russia called?

71. In what part of Europe is Austria-Hungary? Of what does it consist? Where is the wheat-growing section? Name the other leading products. Why has Austria-Hungary but little foreign commerce? What are the people of Austria called? Of Hungary?

72. What natural division is Italy? What does it somewhat resemble in shape? What have you learned of its climate? Name its leading products. Why can the fruits of the warm belt be raised in abundance in Italy, and not in the same belt in the United States? What famous ancient city is in Italy? What have you learned about this city? What and where is Mount Vesuvius? What are the people of Italy called?

73. How is Switzerland situated? What is said of its scenery? What is its form of government? Why is it not a good farming country? What is the character of the people? What is made in Switzerland? What are the people of Switzerland called?

74. What was the former standing of Spain and Portugal? From which of these countries did Columbus sail for America? What possessions did Spain acquire in America? Portugal? What have they now? What are the leading products of Spain? What are the people of Spain called? Of Portugal?

75. What have you learned of the surface of Holland? Of its canals? What natural difficulties do its people have to overcome? What foreign possessions has Holland? What trade do these possessions bring? For what are the people noted? What are the people of Holland called? What are the leading products of Belgium? What are the people of Belgium called?

76. Name the Norse countries. Why are they so called? What is their form of government? How does the coast of Norway differ from that of Denmark? What is the chief wealth of Norway and Sweden? What does Denmark produce? What are the people of Norway called? Of Sweden? Of Denmark?

77. Name the states of the Balkan Peninsula. Which is the most important? Where are the other portions of the Turkish Empire? What have you learned of the people of Turkey? Of their farming? Of their commerce and manufactures? What do we get from Turkey? What are the people called? What have you learned of Greece? What are its people called?

Relief Map of ASIA.—Same Scale as North America, South America, Africa, and Australia.

ASIA.

78. POSITION—EXTENT—COAST LINE.

How can Asia be reached by steamer from the United States? (See map, pages 36 and 37.) Does any part of the mainland lie south of the equator? In what latitude, therefore, is this grand division?

Notice from this map of the world that Asia extends through the same belts of heat and cold as North America. The climate, therefore, will, in a general way, be found similar. What have you learned of the effect of elevation on climate? Where is the hottest part of Asia? The coldest?

An Asiatic native ruler.

What oceans wash the shores of Asia? What grand division is west? Name six seas on the eastern coast. Notice how these seas are inclosed by peninsulas and island chains. What large bay and sea on the southern coast? Name three gulfs that indent this coast. What waters separate Asia from Africa? By what are these two grand divisions connected? Find the Black and the Caspian seas. They lie between Europe and Asia. What river and mountains also are between Europe and Asia?

The coast line of Asia, like that of Europe, is broken by numerous peninsulas. Name three on the southern coast. Two on the eastern coast. On the map, page 106, find the Empire of Japan. Of what is this empire composed? Find Formosa. It belongs to Japan. Find Hainan. Ceylon.

Southeast of Asia are a number of islands and groups which form part of the East Indies. These are more fully shown on the map, page 124. Where are the West Indies? What possessions has the United States in each of these island groups?

79. SURFACE AND DRAINAGE.

Find the Pamir Plateau. This rugged highland is often called the "Roof of the World." Why? From this region the high mountain ranges of Asia extend in various directions.

The Himalaya Mountains are the loftiest ranges on the globe. Their summits are always covered with snow. The word *Himalaya* means "the abode of snow." The highest peak in the world is found in this range. What is it called?

Between the Himalaya Mountains and the Kuenlun is the large, high plateau of Tibet. You can see by the map that it is surrounded by lofty mountain ranges which rob the ocean winds of their moisture, leaving the regions beyond arid and almost desert.

The air is so dry on the plateau of Tibet that the people need neither salt nor ice to keep their food from spoiling. Meat hung in the open air becomes so dry that it can be powdered and kept for years. Powdered mutton is a common food in Tibet.

South of the Himalaya Mountains is the great plain of India. A large part of this plain is formed of soil brought down from the mountains by the rivers, and is very fertile. Name two large rivers that cross the plain of India.

ASIA
Same Scale as
North America, South America, Africa and Australia.
Capitals thus : ☆
Scale of Miles.
0 200 400 600 800 1000
600 MILES TO ONE INCH.
Comparative Area
PENN.
≥5,126 Square Miles.
Longitude East 80° from Greenwich
ARCTIC OCEAN
INDIAN OCEAN
PACIFIC OCEAN
EUROPEAN RUSSIA
RUSSIAN EMPIRE
SIBERIA
CENTRAL ASIA
RUSSIAN TURKESTAN
CHINESE TURKESTAN
BOKHARA
KHIVA
Kirghiz Steppes
Tundras
MONGOLIA
Desert of Gobi
MANCHURIA
CHINESE EMPIRE
CHINESE REPUBLIC
TIBET
CHINA
INDIA
HINDUSTAN
UPPER BURMA
LOWER BURMA
SIAM
FRENCH INDO-CHINA
PERSIA
ARABIA
AFGHANISTAN
BALUCHISTAN
NEPAL
BHUTAN
Black Sea
Caspian Sea
Sea of Azov
Aral Sea
Lake Baikal
Lake Balkash
Japan Sea
Okhotsk Sea
Yellow Sea
Eastern Sea
China Sea
Bay of Bengal
Arabian Sea
Gulf of Aden
Persian Gulf
Gulf of Siam
Red Sea
Mediterranean Sea
Constantinople
St. Petersburg
Moscow
Berlin
Paris
London
Vienna
Rome
Athens
Cairo
Tabriz
Teheran
Bagdad
Damascus
Jerusalem
Mecca
Muscat
Aden
Delhi
Calcutta
Bombay
Madras
Colombo
Mandalay
Rangoon
Bangkok
Saigon
Hanoi
Hue
Peking
Tientsin
Shanghai
Nanking
Hankow
Canton
Hongkong
Seoul
Fusan
Tokio
Yokohama
Osaka
Vladivostok
Irkutsk
Yakutsk
Tobolsk
Tashkend
Samarkand
Yarkand
Khiva
Kabul
Cashmere
Lassa
Himalaya Mts.
Hindu Kush Mts.
Kuenlun
Thian-Shan Mts.
Ural Mountains
Ural R.
Volga R.
Ob R.
Irtish R.
Yenisei R.
Lena R.
Amur R.
Yangtze R.
Hoang R.
Indus R.
Ganges R.
Brahmaputra R.
Mekong R.
Euphrates R.
Tigris R.
Suez Canal
Red Sea
Persian Gulf
Gulf of Aden
Strait of Bab-el-Mandeb
Strait of Malacca
Caucasus Mts.
Trans-Caucasia
Elburz Mts.
Khin-Gan Mts.
Yablonoi Mts.
Altai Mts.
Kuenlun
Great Wall
Grand Canal
Mt. Ararat
Mt. Sinai
Mt. Everest
Trebizond
Cyprus
Crete
Smyrna
Sea of Marmora
Dardanelles
Lake Aral
Lake Balkash
Lake Baikal
Lena R.
Yenisei R.
Ob R.
Irtish R.
Ural R.
Volga R.
Amur R.
Yangtze R.
Hoang R.
Indus R.
Ganges R.
Brahmaputra R.
Mekong R.
Euphrates R.
Tigris R.
Suez Canal
Red Sea
Persian Gulf
Gulf of Aden
Strait of Bab-el-Mandeb
Strait of Malacca
Caucasus Mts.
Trans-Caucasia
Elburz Mts.
Khin-Gan Mts.
Yablonoi Mts.
Altai Mts.
Kuenlun
Great Wall
Grand Canal
Mt. Ararat
Mt. Sinai
Mt. Everest
Trebizond
Cyprus
Crete
Smyrna
Sea of Marmora
Dardanelles
Lake Aral
Lake Balkash
Lake Baikal
WRANGEL I.
NEW SIBERIA ISLANDS
NOVA ZEMBLA
North Cape
C. Chelyuskin
BRITISH ISLES
North Sea
Bering Sea
ALEUTIAN ISLANDS
KAMCHATKA
KURILE ISLANDS
SAKHALIN I.
Stanovoi Mts.
Lena Mts.
ARCTIC CIRCLE
TROPIC OF CANCER
EQUATOR
LIUKIU IS.
FORMOSA
Taiwan
HAINAN
PHILIPPINE ISLANDS
(To United States)
Manila
BORNEO
CELEBES
NEW GUINEA
SUMATRA
CEYLON
C. Comorin
C. Guardafui
C. Cambodia
Strait of Malacca
MALAY PENINSULA
Singapore
Formosa Strait
Hainan
Hongkong
Canton
Foochow
Shanghai
Nanking
Hankow
Peking
Tientsin
Seoul
Fusan
Tokio
Yokohama
Osaka
Vladivostok
Irkutsk
Yakutsk
Tobolsk
Tashkend
Samarkand
Yarkand
Khiva
Kabul
Cashmere
Lassa
Himalaya Mts.
Hindu Kush Mts.
Kuenlun
Thian-Shan Mts.
Ural Mountains
Ural R.
Volga R.
Ob R.
Irtish R.
Yenisei R.
Lena R.
Amur R.
Yangtze R.
Hoang R.
Indus R.
Ganges R.
Brahmaputra R.
Mekong R.
Euphrates R.
Tigris R.
Suez Canal
Red Sea
Persian Gulf
Gulf of Aden
Strait of Bab-el-Mandeb
Strait of Malacca
Caucasus Mts.
Trans-Caucasia
Elburz Mts.
Khin-Gan Mts.
Yablonoi Mts.
Altai Mts.
Kuenlun
Great Wall
Grand Canal
Mt. Ararat
Mt. Sinai
Mt. Everest
Trebizond
Cyprus
Crete
Smyrna
Sea of Marmora
Dardanelles
Lake Aral
Lake Balkash
Lake Baikal

Pilgrims bathing in the Ganges River.

The Ganges River is subject to great floods every year. Its waters reach the sea through a network of channels that form the largest delta in the world. The river is considered sacred by the natives, and some parts of it are visited by thousands of people who think that by bathing in its waters their sins will be washed away.

East of Tibet is the plain of China, which we may call the "Yellow Land," as it is the home of the yellow people and much of its soil is yellow. The Hoang Ho (*Ho* means "river") carries so much of this soil that it is called the Yellow River. It is sometimes also called "China's Sorrow," because of the great losses of life and property caused by its floods. What other large river crosses the plain of China?

North of the highlands of Asia is the plain of Siberia, which extends also across Europe, forming the largest plain in the world. What three large rivers cross this plain? Near the Arctic Ocean it consists of desolate frozen bogs, or tundras. South of these are great forest belts and vast grassy plains, or steppes. Southwestern Asia is a plateau region, much of which is desert.

There are but few lakes in Asia. The largest body of fresh water is Lake Baikal, which is nearly twice the size of Lake Ontario. Two of the very large salt lakes, Aral and Caspian, are called seas. Lake Balkash also is a large body of salt water.

80. RESOURCES AND PRODUCTS.

The peninsulas of southern Asia are in the hot belt, and the low plains of this region have a rank growth of trees, vines, and other plants. In many places these form dense thickets, called *jungles*.

Valuable timber trees, palms, bamboos, and plants that furnish dyewoods and spices, abound, and cotton, rice, sugar cane, coffee, and tea are raised. Many of the people of this hot region live almost entirely upon rice.

In this belt are found most of the large and dangerous wild animals of Asia. It is the home of the elephant, rhinoceros, lion, tiger, buffalo, leopard, hyena, and wild boar. Troops of monkeys, birds of gay plumage, and poisonous snakes live in the forests and jungles, and crocodiles infest the streams.

A dry highland region lies north of the hot belt, and beyond this are forests of pine and fir. The bear and wolf are found in the forest region, and farther north are the reindeer and many small fur-bearing animals. On the grassy steppes of Central Asia are raised great numbers of camels, sheep, and goats.

The south of Asia has long been noted for its precious stones. Coal and other minerals and metals are widely distributed, but are not fully worked. The commerce of Asia is only about one fourth as large as that of Europe.

Map Studies.—What country of Asia borders on the Arctic Ocean? What countries border on the Pacific Ocean? On the Indian Ocean? On Europe? Name a country not reached by the ocean or one of its arms. What United States possessions are near the southeastern coast? What is the nearest Asiatic seaport to Manila?

What part of Asia is crossed by the Tropic of Cancer? In what zone are the countries south of the tropic? What part is crossed by the Arctic Circle? What zone is north of this circle? In what zone are the countries between the Tropic of Cancer and the Arctic Circle? In what latitude is Asia? How do you know?

81. PEOPLE AND COUNTRIES.

More than half of all the people on the globe live in Asia. The larger part of these belong to the yellow race. The white population is found principally in the southern part of the grand division, and the Malay or brown race inhabits the islands southeast, and a small part of the adjacent mainland.

The greater part of the people of India and of southwestern Asia, although darker in color than those of Europe, belong to the white or Caucasian race. There are many millions of them.

None of the nations of Asia are as highly civilized as those of Europe or of our own country, although some of them have made great progress in the last few years. In most parts of Asia the common people are very poor, and the women are but little better than slaves.

A statue of Buddha.

Various forms of religious belief exist among the people of Asia. In the southwestern section there are many Mohammedans, who believe in God, but follow the teachings of their prophet, Mohammed. In southern Asia are many millions who believe in Brahmanism, so called from its chief god, Brahma. In central and eastern Asia we find the followers of Buddha, who number about one third of the human race. What is their belief called?

The most important countries of Asia are India, China, and Japan. While the great bulk of the people live in these countries, more than one third of all the land of Asia belongs to the Empire of Russia. What is the capital of the Russian Empire?

82. INDIA.

Map Studies.—In what part of Asia is India? What natural division of land is it? Name its principal divisions. What waters border on India? What mountain range north? What empire beyond? What countries east of India? West? By what rivers is India drained? What cape at the southern extremity? What large island?

India is about half as large as the United States, but contains three times as many people. It forms a part of the great British Empire, and many English people live in India. Where is the seat of government of the British Empire? Who is its present ruler? Name some other countries owned by Great Britain.

The greater part of the natives are Hindus. What have you learned of their race and color? They are a half-civilized people, and are divided into classes, or *castes*. The highest caste is that of the Brahmans, who are the best educated. Next come the soldiers, then the farmers, then the laborers. If the members of any class eat or trade with those of a lower class, they are despised by their own people and become outcasts.

Hindu child seized by a tiger.

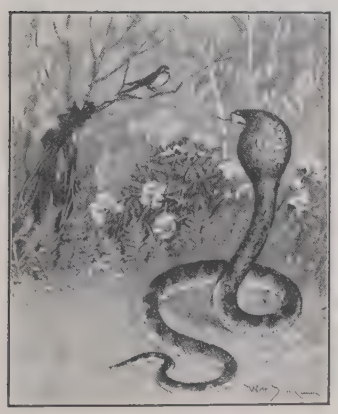
The Hindu children in country places run about unclothed. They play in the mud and water, and drive the humped cows to pasture. Sometimes a tiger from the jungle or a crocodile from the stream carries off a child in its mouth.

The Hindus have strange manners and customs. The men wear long robes and gay turbans. A turban is a cloth wound many times around the head. The women are fond of jewelry. They seldom leave their homes, and when they do they wear veils over their faces.

Farming is the chief employment of the people of India, and much grain, cotton, and opium are produced. Some of the cotton is spun and woven into cloth of exceeding fineness, and many other beautiful articles of silk, gold, and ivory are made by hand. The manufactures, however, are not very important. Nearly half of the commerce of Asia centers in India.

Opium is a drug made from the juice of the poppy. It is much used in medicine, and a great deal is smoked in pipes by the Chinese and other Eastern nations. What is the effect of the use of opium? What is made from this drug?

Throughout India one sees splendid palaces, temples, and tombs, adorned with gold, silver, and jewels; yet amid this wealth the lower classes live in rude hovels, and have but little to eat. There are so many millions of them to feed that when the crops fail from want of rain the people suffer terribly from famine and disease.



A deadly cobra.

Many thousands, too, are killed each year by wild beasts and poisonous snakes. Among the latter the most deadly is the cobra. It is said that 20,000 people die each year from its fatal bite.

Delhi is the capital of India. *Calcutta* is the great commercial port. It is the most important commercial city of Asia. *Madras* and *Bombay* are large cities and important seaports. Find the island of Ceylon. Much tea is exported from here. This island is a little larger than the state of West Virginia.

83. SOUTHEASTERN ASIA.

Map Studies.—What two countries southeast of India? What peninsula? A part of this peninsula belongs to the British Empire. What large river drains this section? What separates the Malay Peninsula from the island of Sumatra? What gulf south of Siam? What sea between French Indo-China and the Philippine Islands?

The countries southeast of British India have about the same climate and products as that section. In the southern parts are many Malays, but most of the people belong to the yellow race.

From this part of Asia we get spices, rice, sugar, raw silk, lumber, and tin. The most valuable wood is teak, which is much used in shipbuilding. The commerce is extensive.

A Malay village.

SIAM is an independent kingdom. It is sometimes called the "Land of the White Elephant," because that animal is there considered sacred. Find the capital.

FRENCH INDO-CHINA is made up of a number of native states. Some of them have native rulers, but all are under French control. Most of the trade is with France.

Find *Singapore*. It is in the British part of the Malay Peninsula, and is a great market for the spices, tin, and other products collected from the neighboring regions.

84. CHINA.

Map Studies.—What five divisions comprise the Chinese possessions? What does the map show as to the surface? What country north? What seas east? What countries south? In what part of the country is China proper? What large rivers drain this country? Where is the source of these rivers? What other large rivers flow from the same plateau? What desert in the north?

China is the principal home of the yellow race. It is not much larger than the United States, but has nearly five times as many people. A large part of its area lies in the plateau and desert region of central Asia. China is now a republic.

The Chinese are one of the oldest nations of the world. The interior of their country is not well known, as they dislike to have strangers travel through their land. For many years they would not even trade with foreign nations, but now most of their coast towns are open to people of other countries.

A part of the Great Wall of China.

The Chinese knew how to print books and make gunpowder before the white people had found out these things, yet they are to-day very little in advance of what they were a thousand years ago. Ask your teacher about the "Great Wall."

What have you learned about the rich plains of China? In this part of the country live nearly one fourth of all the people in the world. Most of them are farmers, and the smallest patch of soil is made to grow something that will help feed these millions. They do not raise many cattle, but have great numbers of fowls and pigs. Fish and rice are much used for food.

We know China best from its tea, its silk, its fine carved work, and its china ware. Tea is raised on the upland slopes, and is one of the principal exports. Much of it is sent overland to Europe by railroad or by caravan. What nation of Europe is nearest Asia? Its people are great tea drinkers. What is china ware? What other silk-raising countries have you learned about? (See pages 89, 95, 98.)

A tea plantation in China.

Notice a package of tea as it comes from the store. You would hardly think that it consisted of dried, rolled-up leaves, but when soaked in hot water the leaves soften and unroll, and you can find many that are unbroken and in their natural shape.

Several thousand miles of railroad pass through parts of China. There are few other roads. Steamers ply on some of the larger rivers, but many of the goods and passengers are carried on the rivers and canals by clumsy vessels called *junks*. On land merchandise is carried mostly on the backs of men. When the crops fail in some parts of the country, thousands of the people die of starvation, as food from other places cannot be carried to them in time.

There are many very large cities in China, but the houses are generally small, and the streets narrow and dirty. Find *Peking*. It is the capital, and one of the large cities of China. It has railroad connection with various parts of the country and with Europe.

Find *Canton*. It is the chief city and seaport of China. Find *Hongkong*. This city and the small island on which it is built belong to Great Britain.

Find the peninsula of Korea. This country was for many years a part of China, later it became an independent kingdom, and now it is controlled by Japan. It is mountainous, and but little is known of the interior.

Fujiyama, the sacred mountain of Japan.

85. JAPAN.

Map Studies.—Of what does the Empire of Japan consist? Name the largest island. The most southern island. What seas separate Japan from the mainland? What do you learn from the map as to the surface of Japan?

Japan is a native empire; that is, it is not, like India, under the control of a foreign nation. It lies in the same belts as the United States, and has much the same climate. Hondo, the largest island, is about the size of Utah. There are a great many volcanoes in Japan, and earthquakes are common.

Japan was for many centuries a nation to itself, like China. Of late years it has made rapid progress, and now has good schools, newspapers, telegraphs, railroads, and steamships. It has also a strong fleet of war vessels. The people look somewhat like the Chinese, but are more active in business matters.

A Japanese dinner party.

Let us visit a Japanese family. We are taken to the house in a two-wheeled carriage, which is called a *jinrikisha*, and is drawn by a man. At the door we take off our shoes before we enter. We find ourselves in a room the floor of which is covered with clean mats. This room can be turned into a sitting room, bedroom, or kitchen by means of sliding screens. There are no chairs or tables. The lady of the house does not shake hands with us, but bows two or three times, and falls on her knees and touches her face to the floor. To be polite we must also bow and kneel.

Farming is the leading occupation, although a great deal of land is too rough for this work. Japan ranks next to China in the production of raw silk. Much tea also is raised. The bamboo, so useful to the people of Asia, is abundant, and also the trees that yield camphor. As in China, there are few sheep or cattle, but many hogs and fowls are raised. There is plenty of coal and iron, and good water power; hence Japan is fast becoming a manufacturing country.

Nearly every large city in our own country has one or more Japanese stores in which are sold beautiful and curious things made of porcelain, bronze, and other materials. The Japanese are very skillful in making these fine goods.

Tokyo, the capital, is the largest city of Japan. It has grown very rapidly, and now has more than two million people. Find *Yokohama.* It is the seaport of Tokyo, and has a large foreign commerce. Where else have you learned of large inland cities with seaports on the coast? What reason is there for this?

A group of Siberian exiles.

86. SIBERIA.

Map Studies.—In what part of Asia is Siberia? What ocean north? Seas east? What is the general slope of the country? How do you know this? Name the four principal rivers. Locate Lake Baikal. Lake Balkash. Aral Sea. Which of these are salt?

Siberia is larger than the whole United States, but is thinly settled. It is a part of the Empire of Russia. Where is Russia? What is the seat of government of this empire?

What have you learned of the surface and climate of the Arctic coast of Siberia? Farther south, in the forest belts and on the grassy plains, the summers are short and hot, and the winters long and cold. There is much fertile land in southern Siberia. The rivers are the chief highways of travel.

The native people of Siberia are of the yellow race. Most of the white inhabitants have come from Russia. Many of them have been sent to Siberia as a punishment for some offense or crime. Such people are called *exiles.*

On the map of the world (pages 36 and 37) trace the railroad from St. Petersburg eastward across central Asia to the Pacific Ocean. This great road will open up for settlement the fertile fields of southern Siberia. Notice that the road passes through the valley of the Amur River. This is a fine grain-growing section.

Vast herds of horses, cattle, and sheep are raised in southern Siberia. Through this region many caravans pass on their way to and from the Chinese Empire. Most of these go by way of *Irkutsk,* which is a great trade center.

87. SOUTHWESTERN ASIA.

Map Studies.—Find on the map Afghanistan, Baluchistan, Persia, Arabia, part of the Turkish Empire, and Trans-Caucasia. What natural division of land is Arabia? What two rivers flow into the Persian Gulf? What mountain range between Trans-Caucasia and Russia?

The surface of this part of Asia is chiefly a dry plateau broken by the low plains of the Euphrates and Tigris rivers. Much of this plateau region consists of sandy deserts.

In nearly all deserts there are places where the underground water comes near the surface, so that trees, grass, and other plants will grow. Such a place is called an *oasis.*

Arabia is largely desert, although near its coasts are fertile lands which produce dates, coffee, and grain. The people are called Arabs. They belong to the white race, but have dark skins. Find *Mocha.* What do we get from this place?

The Arabs who live in the desert are called Bedouins. They dwell in tents, and wander from one oasis to another, with their camels, and their herds of sheep and goats. Some of the finest horses in the world are raised in Arabia.

A Bedouin encampment in an oasis.

We will visit the tent of a Bedouin. It is black in color, and is made of goats'-hair cloth. The tent is about twenty feet long and is divided into two rooms. One is for the women and children, and the other serves for a kitchen and general sitting room.

You have learned about Turkey in Europe. Notice that part of the Turkish Empire extends into Asia. This is sometimes called Asiatic Turkey. The land is rich but is not well cultivated, and the country does not prosper under Turkish rule. *Smyrna* is the chief seaport.

Afghanistan and Baluchistan are mountainous countries lying between the Asiatic possessions of Russia and Great Britain. Through the wild mountain passes of this region important caravan routes lead to India. Find the capital of each country.

The desert plateaus of Persia are in many places covered with salt, that looks like a light fall of snow. Dates, melons, cotton, and rice grow well in the lowlands, and horses, camels, and sheep are raised. The people weave beautiful shawls, carpets, and rugs by hand. The capital of Persia is *Teheran*. The chief ruler is called the *Shah*.

Find on the map *Jerusalem*, the Dead Sea, and Mount Sinai. In what country are these places? Where have you read about them? Tell what you can of each.

TEST AND REVIEW QUESTIONS.

78. Trace on the map (pages 36 and 37) the most direct eastern route of a voyage from New York to Hongkong. From San Francisco westward to Hongkong. Name three groups of islands that skirt the coast of Asia. Where are the East Indies? How does the coast line of Asia resemble that of Europe? Where are the coldest parts of Asia? The warmest? What other grand divisions are in the same belts?

79. Which is the loftiest mountain range on the globe? Name the highest peak of this range. Where is the highland region of Asia? Why is the Plateau of Tibet so dry? What fertile plains are south of the highland region? What great plain north? What are tundras? Steppes? Name the chief rivers of Asia. The principal lakes. Which of these are salt? Why?

80. Where is the hot belt of Asia? What are the principal plants of this belt? The principal animals? What animals are found farther north? What plants? What have you learned of the mineral products of Asia? Of its commerce?

81. Of what race are most of the people of Asia? What other races are there? How do the Caucasians of Asia differ from those of Europe? What have you learned of the civilization of Asia? What are the principal religious beliefs of the people? Name the most important countries of Asia.

82. How does India compare in size and population with the United States? Under what government is it? What have you learned about the Hindus? What is the principal occupation of the people of India? The condition of the people? What are the chief productions? The chief cities?

83. Find on the map Siam, French Indo-China, and the Malay Peninsula. What do we get from this part of Asia? What have you learned of Siam? Of French Indo-China? What is the chief trade center of this region?

84. What have you learned about the Chinese? What of Chinese travel and transportation? Of Chinese cities? Of Korea? What Chinese products have you seen? Write the history of a cup of tea.

85. Of what is the Empire of Japan composed? It extends from the Kurile Islands to Formosa. Does the United States extend as far north and south? (See map, page 44.) What have you learned of the progress of Japan? Name some of its products. Why will it become a manufacturing country? What of its cities?

86. What have you learned of the surface of Siberia? Of its climate? Of its size? Of its people? Of its great railroad?

87. What is the general surface of southwestern Asia? What do we get from Arabia? Tell what you know about the Bedouins. What is a desert? An oasis? What are some of the products of Persia? What is the chief ruler called? Under what government is Jerusalem? Why do we take so much interest in this city?

AFRICA.

Lions in the desert.

five times as large as Pennsylvania. What three groups near the northwest coast? To whom do they belong? What do you know of the Canary Islands?

As the greater part of Africa lies in the Torrid Zone, it is naturally a hot country. The region of greatest heat is found possibly in Lower Nubia. The Arabs have a saying that "in Nubia the soil is like fire and the wind like a flame."

88. POSITION—EXTENT—COAST LINE.

What part of Africa is crossed by the equator? In what zone, then, is the greater part of the grand division? What kind of climate would you naturally look for in this zone? In what zone are the countries bordering on the Mediterranean Sea? The countries near the Cape of Good Hope? What other grand division lies in nearly the same belts of temperature?

In what way does the coast line of Africa resemble that of South America? How does it differ from those of Europe and Asia? What oceans border on Africa? What seas? What large gulf? What noted strait separates Africa from Europe? From Asia? What isthmus connects Africa with Asia? What gulf between Arabia and Somaliland?

Could a vessel sail entirely around Africa? How would it pass the Isthmus of Suez? Name all the waters on which it would sail. What cape would it pass at the east? At the south? What cape at the west? What group of islands near this cape? What large island near the southeast coast? What channel separates it from the mainland? This island is

89. SURFACE AND DRAINAGE.

You will see from the relief map that the high mountain ranges of Africa are near the sea. From these mountain ranges there is a steep slope to the narrow, unhealthful strip of low plain bordering on the ocean.

On the inland side of the mountains the slope is more gradual, and much of the surface of the land is far above the sea level. Southeastern Africa may be considered a vast plateau.

Find the Atlas Mountains. These are the greatest elevations in the north of Africa. South of these mountains is the lowland desert region of the Sahara, crossed near the center by a strip of highland. South of the Sahara are the fertile plains of the Sudan. Find the highlands of Abyssinia. What peaks of the southeastern plateau region are on or near the equator? These peaks are always covered with snow. What is the climate at the equator?

Has Africa many or few rivers as compared with other grand divisions? Which is the longest river? Where does it rise? What direction do you travel in going down the Nile? Down the Mississippi?

Relief Map of AFRICA.— Same Scale as North America, South America, Asia, and Australia.

The heavy rains near the source of the Nile swell the river so that it overflows its banks as its waters near the sea. What do plants require besides heat in order to grow well? The floods of the Nile cover the narrow valley on each side of it with a coating of rich mud which makes it one of the best farming regions in the world. Several millions of people are fed from the fertile soil brought from the heart of Africa by this great river. The valley of the Nile, covered with growing grain, has been compared to a green ribbon laid upon a yellow cloth, the latter being represented by the sand of the surrounding desert.

Find the Kongo River. This river, though not so long as the Nile, drains an extent of country greater than that drained by the Mississippi River. Find the Niger River. The Zambezi. The Orange. None of the African

Cataracts of the Nile.

rivers are navigable very far inland for sea-going vessels, as their channels are more or less obstructed by waterfalls, rapids, and sand bars.

Where is the lake region of Africa? Name three of the largest lakes. Victoria Nyanza (*Nyanza* means "lake") is about the size of Lake Superior. Lake Chad, in Central Africa, although it has no outlet to the sea, is a body of fresh water. What other grand division is well watered in the equatorial belt?

90. RESOURCES AND PRODUCTS.

More than one third of Africa is too dry for vegetation. In the central belt, where the rainfall is abundant, there are dense forests. Both north and south of the forest belt are wide grassy plains which afford pasture for cattle and wild game. Still farther north and south are the deserts. Most of the farming is done in Cape of Good Hope and the Boer countries, along the Mediterranean, and in the valley of the Nile.

Livingstone, the great African explorer, describes the forests of Central Africa as so dense that the sun's rays can scarcely penetrate them. The rain water stands for months in pools made by the feet of elephants. The climbing plants are so numerous that when one of the great trees with its tangle of vines falls across the path, it must be climbed, as cutting a path around it is a work of time and labor that travelers never undertake to perform.

A date palm.

The trees most useful to the people of Africa are the palms, of which there are many kinds. The date palm furnishes a large part of the food of the natives of northern Africa, the fruit of the oil palm yields a valuable oil, and from another palm sago is obtained. Ebony, india rubber, and trees that produce gum arabic are also found in the forests.

Africa has long been known as the land of ivory. What is ivory? From what animal is it principally obtained? This country is the home also of the lion, rhinoceros, giraffe, hyena, monkey, gorilla, antelope, zebra, jackal, and many other land animals, while the hippopotamus and crocodile are found in its streams.

The ox and the camel are the most useful domestic animals. Without the latter it would be almost impossible to cross the vast desert tracts of Africa. Why is the camel often called the "ship of the desert"? The ostrich, which

is too large a bird to fly, but which can run as swiftly as a horse, is found wild on the plains, and is also raised in great numbers on the ostrich farms of southern Africa. For what purpose is the ostrich raised?

Hippopotamus, giraffes, elephants, and gorilla.

There are many hurtful insects in Africa. In the northern part, great swarms of locusts sometimes devour the vegetation, leaving the country bare and blackened as if swept by fire. In the forest regions armies of ants travel over the land, crossing hills and streams, and destroying every living animal that comes in their way. In the central and southern parts is the tsetse fly, whose bite is often fatal to horses and other domestic animals, besides being the cause of the sleeping sickness in man.

For many years gold has been obtained from the coast of the Gulf of Guinea. What English coin gets its name from this gold? In later years some of the richest gold fields in the world have been found in South Africa, and here, too, are the great diamond mines that now supply the world.

The trade from the interior of Africa is carried on mostly by caravans. What is a caravan? Much of this trade is across the Sahara to the ports of the Mediterranean Sea. The caravans bring to these ports gold dust, ivory, ostrich feathers, and gums, and take back in return salt and trinkets to exchange with the natives for these things.

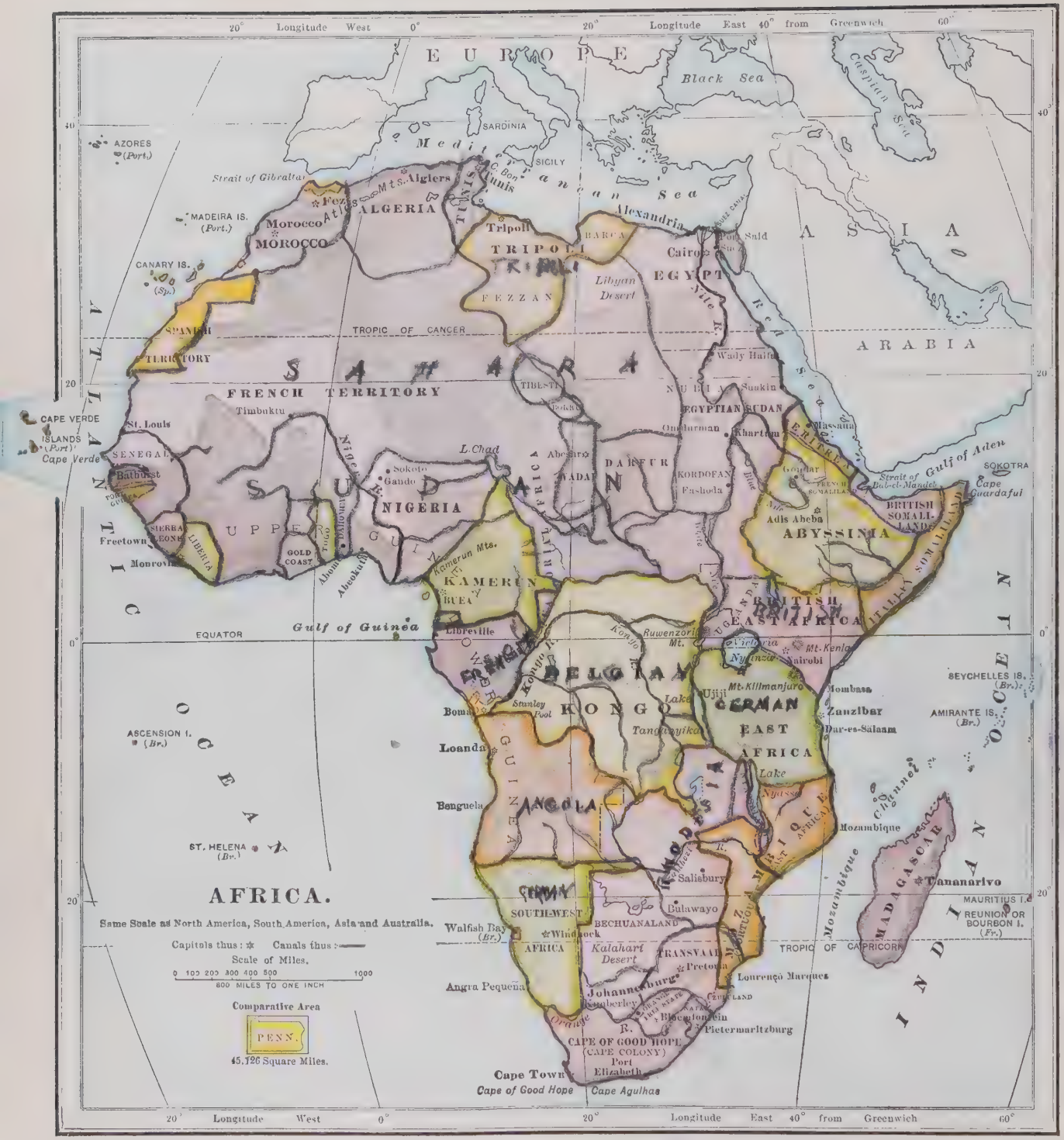
91. PEOPLE AND COUNTRIES.

Africa was long known as the "Dark Continent," both from the color of its people and because so little could be found out about its interior. Many brave travelers, while trying to explore the country, lost their lives from its deadly fevers, or were killed by the natives. What does "explore" mean? Ask your teacher to tell you about Livingstone and Stanley.

Within the last few years, however, several nations of Europe have taken possession of different sections of the country, and now most of Africa is owned by Great Britain, Germany, France, Italy, Belgium, and Portugal. Many people from these countries live in their various possessions, and most of the trade and commerce is in their hands.

A native African village.

Africa is best known, however, as the home of the black race. It has many more people than there are in North America, and most of them are negroes. These negroes are divided into various tribes which are often at war with one another. Some of them do a little in the way of raising vegetables and grain to feed themselves and their cattle. A few tribes have learned to make cloth, leather, and some rude articles of iron and ornaments of gold. They require but little clothing. Why?



Map Studies.—What countries of Africa are crossed by the equator? In what zone is the greater part of the grand division? In what zone are the countries along the Mediterranean Sea? Those near the Cape of Good Hope?

Locate — *British possessions:* Cape of Good Hope, Rhodesia, Transvaal, Orange Free State, Natal, Nigeria, British East Africa, Sierra Leone, Gold Coast, British Egyptian Sudan, Egypt. *German possessions:* German East Africa, German Southwest Africa, Kamerun. *French possessions:* Morocco, Algeria, Tunis, Senegal, Dahomey, French Equatorial Africa, Madagascar. *Portuguese possessions:* Mozambique, Portuguese Guinea, Angola. *Italian possessions:* Tripoli, Eritrea, Italian Somaliland. *Other Countries:* Liberia, Belgian Kongo, Abyssinia.

The houses in many of the negro villages are round huts made of poles, and covered with bark or thatched with straw. The black children dance and play ball, and have many other games. A favorite amusement is catching rats and field-mice in long, tube-like baskets which are hidden in the grass.

For centuries the slave trade has been the curse of Africa. Millions of black people have been taken to other lands and sold as slaves. Most of the civilized nations of the earth are now actively opposed to the slave trade, and in time will put an end to it.

Slaves are still held in northern Africa, in parts of Asia, and in European Turkey. Most of the present slave trade is carried on by the Arabs.

Sphinx and pyramid, Egypt.

92. EGYPT.

Map Studies.—In what part of Africa is Egypt? On what waters does it border? What isthmus and canal in the northeast? What noted river flows through Egypt?

Many centuries ago Egypt was a powerful nation and had reached a high state of civilization. Its people built immense pyramids and splendid temples, the ruins of which are found all over the land. Its ancient greatness, however, has long since departed.

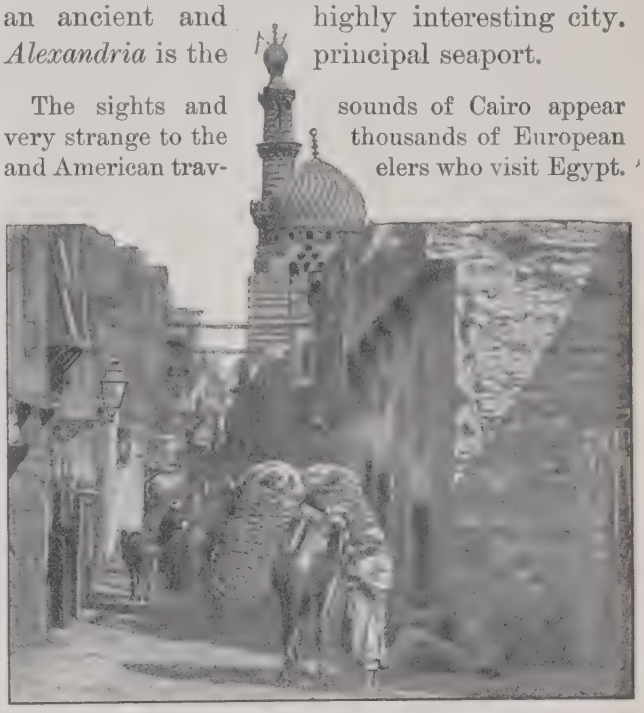
What have you learned of the Suez Canal? The British have the control of this great water way, through which thousands of vessels pass every year, and their rule really extends over the whole country, although in name it belongs to Turkey.

Except the narrow strip watered by the Nile, Egypt is a desert. This flat, narrow Nile valley is, however, one of the most fruitful spots in the world, yielding two or three crops each year. Wheat, corn, cotton, rice, sugar cane, and dates are the chief products.

The country south of Egypt, known as British-Egyptian Sudan, is also under British control. It has some trade with Egypt in gold dust, ostrich feathers, gums, and hides.

Most of the people of Egypt are Mohammedans. What have you learned about the Mohammedan religion? *Cairo*, the capital, is an ancient and highly interesting city. *Alexandria* is the principal seaport.

The sights and sounds of Cairo appear very strange to the thousands of European and American travelers who visit Egypt.



Street scene in Cairo.

In the narrow streets there are turbaned Turks, gayly dressed Greeks, closely veiled women, girls carrying water jars, overladen donkeys, and mournful-looking camels. On every side are heard the cries of those who have things to sell: "Oh, oranges to the right!" "God's gift, limpid water!" "Sugar cane!"

93. THE BARBARY STATES.

Map Studies.—What four countries of Africa, west of Egypt, border on the Mediterranean Sea? What division lies south of these states? What mountains extend through Morocco, Algeria, and Tunis? Find out why these mountains were so named.

The Barbary States were so called because a people called Berbers first lived there. As in Egypt, most of the native people are Mohammedans.

The country near the Atlas Mountains is very fertile but is poorly farmed. Many horses, cattle, camels, sheep, and goats are raised. Cork, olive oil, dates, skins, and esparto grass for making paper are exported.

Arab boys in market, Algiers.

Morocco is under the protection of France. *Morocco* and *Fez* are the chief cities. Algeria is the most important and prosperous foreign possession of France. Tunis also belongs to France. Name their capitals. Tripoli is governed by Italy. The city of *Tripoli* is the capital, and is the center of the caravan trade across the Sahara.

94. THE SAHARA.

The Sahara, or Great Desert, is part of the vast desert belt that extends across Africa and Asia. It does not consist entirely of flat, barren wastes of drifting sand, although much of the surface is of this nature. Parts of the desert are covered with loose rocks and rocky ridges, and there are low mountain ranges near the center.

There is much land in the Sahara that would be productive if it could be watered. In places where springs exist, grass and trees spring up, and oases are formed on which people can live and raise food. These oases serve as halting places for caravans.

The Sahara is about two thirds as large as the United States, and it is estimated that more than two million people live within its borders.

Loading camels to cross the desert.

95. THE SUDAN AND ABYSSINIA.

If we travel south across the Sahara, we will in time reach a belt of country where the rainfall begins, and where the sand of the desert gives way to grass and trees. This fertile belt is called the Sudan, and is the home of the largest and most civilized part of the native negro race. *Sudan* means "black."

The negroes are divided into many tribes, each of which has its own king. They have herds of cattle and do good farming with the few rude tools they make. Some of them raise cotton, and manufacture cloth and leather.

There are a number of large native towns in the Sudan. Here traders collect to load caravans with the products of the country. In what direction from *Timbuktu* would caravans travel to reach Tripoli? Most of the Sudan is claimed by European nations.

East of the fertile plains of the Sudan is the plateau region of Abyssinia. It is a rugged country with deep, narrow valleys. Most of the people are Christians. They are chiefly occupied in pasturing herds of cattle, sheep, and goats. Gold, ivory, and coffee are exported.

96. BELGIAN KONGO.

South of the Sudan is the Belgian Kongo, which is controlled by Belgium. It forms the greater part of the basin of the Kongo River. It is a region of dense forests and the home of millions of negroes. Find the capital.

The Kongo River is the great highway of the country. About one hundred miles from the sea it is obstructed by rapids, around which a railroad has been built. Beyond these rapids there are over a thousand miles of navigable water, on which many river steamers ply. The state exports rubber, ivory, and palm nuts.

97. THE UNION OF SOUTH AFRICA.

Map Studies. — In what part of Africa is Cape of Good Hope? On what waters does it border? What river on the north? Capes south? Where is Natal? Orange Free State? The Transvaal?

The British provinces of Cape of Good Hope, Natal, Orange Free State, and the Transvaal are now united under one government, known as the Union of South Africa. The governor general is appointed by the British sovereign, and each province also has its own local government. The Union has two capitals, one at *Cape Town*, and the other at *Pretoria*.

Cape of Good Hope is the most important of the British possessions in Africa. It was first settled by the Dutch about two hundred and fifty years ago, and was captured by the English one hundred and fifty years later.

The principal occupations of the people are mining, farming, and stock raising, and gold, diamonds, and wool are the chief exports. *Cape Town*, the capital, is the chief seaport of southern Africa. Find *Kimberley*. It is the chief center of the diamond trade of the world.

Kimberley diamond mines.

Rough diamonds.

The Orange Free State and the Transvaal were settled by Dutch emigrants from Cape of Good Hope. They were an honest, industrious farming people, and were the first to establish a republican form of government in southern Africa.

These people are called Boers, which is a Dutch word meaning "farmers." The Boers who settled the Transvaal were obliged to cross the Vaal River to reach that country. For this reason it was given the name it bears — *trans* meaning "across." The two countries were annexed by Great Britain in 1900.

These countries are well adapted to stock raising and farming. Millions of sheep pasture on the plains, and there are many ostrich farms. The chief wealth of this region, however, is its rich mines of gold, diamonds, and coal. In the last few years these have brought thousands of people from Europe and America into this part of Africa.

Find *Bloemfontein*, the capital and chief city of the Orange Free State. Find *Pretoria*, the capital of the Transvaal. Find *Johannesburg*. This is the largest city, and is the center of the gold-mining region.

Boers crossing a river.

98. OTHER COAST COUNTRIES.

You will see by the map that most of the eastern and western coast region of Africa is owned by various European countries. From these coast countries we get ivory, rubber, cattle products, gums, ebony, and palm oil. The last-named product comes from the western coast. What other country produces rubber? Name some of its uses.

Find Sierra Leone and Liberia. The former is a British colony, established as a home for freed slaves. The latter was founded for a similar purpose by citizens of the United States, but is now an independent republic. Coffee raising is an important industry in Liberia.

Find Madagascar. It is the largest island of Africa. By what nation is it owned? It is a well-wooded mountainous country, and is rich in minerals. Its products are similar to those of the neighboring coast countries, and it exports large quantities of cattle, hides, and rubber. What is the capital?

TEST AND REVIEW QUESTIONS.

88. In what latitude is Africa? In what zones does it lie? Compare its coast line with those of the other grand divisions that you have studied. What is an isthmus? What isthmus connects Africa with Asia? What other isthmus connects two grand divisions? What is a strait? What strait separates Africa from Europe? What other strait separates two grand divisions? In what part of Africa would you prefer to live? Why?

89. Where do we find the high mountain ranges of Africa? Name three of the highest peaks. What part of Africa forms a vast plateau? Name five large rivers of Africa. What have you learned about the Nile? The Kongo? Why are the African rivers only partly navigable? Which is the largest African lake? Compare it in size with Lake Superior. Where is the best-watered region of Africa?

90. Where is the chief desert region of Africa? The smaller desert region? The dense forest region? The wide grassy plains? Name some of the most valuable trees and their products. What are the principal wild animals? The most useful domestic animals? What does the elephant yield? The ostrich? Where are the richest gold mines? The great diamond mines? What have you learned about caravans and their trade?

91. For what reason do you suppose people risk their lives in exploring foreign countries? Name some great African explorers. What European nations now own the greater part of Africa? What have you learned about the negroes? About the slave trade?

92. Where have you read about the "Land of Egypt"? To whom does this country belong? What would Egypt be without the Nile? What are the chief products of the Nile valley? Of what religious belief are the most of the people? Where do we find many other people of this belief? Name the capital and the chief seaport.

93. Where are the Barbary States? Why are they so called? To whom do they belong? Name some of their products. Capitals.

94. Where is the Sahara? Describe its surface. What is an oasis and how is it formed?

95. Where is the Sudan? Who live there? Tell what you can about the people. In what way is trade carried on? What of the surface of Abyssinia? Of the people? The products?

96. Where is the Belgian Kongo? Under whose control is it? With what is this region covered? By whom inhabited? What of the chief river? The exports?

97. To whom does Cape of Good Hope belong? What are its chief products? What people settled the Orange Free State, and the Transvaal? By whom were these countries annexed? What are they now called? Name their products. Describe the Boers.

98. Name some of the products of the other coast countries of Africa. What use is made of palm oil? What have you learned about Sierra Leone? Madagascar?

AUSTRALIA AND ISLANDS OF THE PACIFIC OCEAN.

Relief Map of AUSTRALIA.—Same Scale as North America, South America, Asia, and Africa.

99. AUSTRALIA.

Is Australia north or south of the equator? What other continent extends farther south? (See map of the world, pages 36 and 37.) How does Australia compare in size with the other continents? The Tropic of Capricorn crosses the center of Australia. In what zone, therefore, is the northern half? The southern half? In what direction from Australia is the United States? Across what ocean?

If you have a globe in your school-room, place one finger on the city of Washington, and another *exactly opposite* on a line through the center; the second finger will come near Australia. From this you will see that Australia is on the side of the globe opposite to us. It is opposite too in its seasons. Its people suffer from heat at Christmas, and have their coldest weather when we are celebrating the Fourth of July.

Map Studies. — Into what five states is Australia divided? What is the northern part of South Australia called? What two islands southeast? Name the largest two islands of New Zealand. To what nations does New Guinea belong? What are the principal islands and groups between New Guinea and Asia? Which of these groups belongs to the United States? Name its largest two islands.

The coast line of Australia is somewhat like that of Africa. Name the two chief indentations. What large islands are separated from the continent by narrow straits? Name these straits. What peninsula is in the north? Find the Great Barrier Reef. This reef, which is the work of the coral animal, extends for over a thousand miles along the northeast coast.

Where the waters of the ocean are warm and not very deep, there live millions of small jellylike animals called *coral polyps*. These build their homes together on the rocks at the bottom of the sea, from the lime that is dissolved in the water. They live only a short time, but other millions go on with the work until

there slowly grows up to the surface a coral *reef*, which in time may become an island. There are many coral islands and reefs in the West Indies also.

The larger part of Australia is a dry plateau, but not of great altitude, the highest part being the mountain ridge along the eastern coast. In the southeast are extensive lowlands drained by the Murray and Darling rivers. These are navigable by small steamers for a few months only.

There are many dry river beds which in the rainy season are filled with rushing torrents, whose waters, however, do not reach the ocean, but either dry up or are lost in the sandy soil. There are also many shallow, marshy lakes that have no outlet to the sea. In the interior but little rain falls, and much of the country is a desert.

An Australian forest scene.

Many of the native animals and plants of Australia are unlike those of the rest of the world. Among the former is the kangaroo This animal has large, powerful hind legs and a thick, heavy tail. It does not walk or run, but gets over the ground in long leaps. Fine leather is made from its hide.

The duckbill, or water mole, as it is sometimes called, is another curious animal. It is not a bird, although it has a bill like a duck, webbed feet, and lays eggs. It is covered with soft fur.

Most of the forest trees are evergreens that shed their bark instead of their leaves. There are fernlike plants of great size, and other plants of curious shape. In the interior are vast tracts of porcupine grass through which it is hard to force a way. The forests abound in parrots and other bright-colored birds.

Australia is an important part of the British Empire. The five states of Australia and Tasmania form the Commonwealth of Australia. *Melbourne* is the temporary capital of the Commonwealth. The native people, a low race of savage blacks, are fast dying out. Most of the white race live in the southeastern part. They are active and enterprising.

The early settlers brought with them the common domestic animals of Europe. These throve well, and Australia to-day is the chief wool-producing country of the world. Cattle products, especially preserved meats, are exported in immense quantities.

Although about one fourth of all the gold mined in the world comes from Australia, it is only one fifth as valuable as the products of the farms and flocks of this continent. Copper, iron, tin, and coal also are abundant.

Government buildings, Melbourne.

Find *Melbourne* and *Sydney*. These are the largest cities of Australia and the chief trade centers. Both cities are important seaports, and each has a large foreign commerce.

100. ISLANDS OF THE PACIFIC.

Southeast of Asia are many islands and groups, that were probably once part of the mainland and are generally studied in connection with Asia. The most important of these are the Philippine Islands and the Dutch East Indies. What have you learned of the Philippine Islands?

The Dutch East Indies comprise Sumatra, Java, Celebes, the Molucca or Spice Islands, and part of Borneo. Most of them are densely populated, the greater part of the people being Malays. These islands supply the markets of the world with coffee, sugar, rice, spices, and tin. Find *Batavia.* It is the capital and chief center of commerce of the Dutch East India possessions.

A cocoanut grove.

North of Australia is the island of New Guinea. It is a mountainous country, nearly five times as large as the whole of New England. New Guinea is owned by England, Germany, and the Netherlands. Pearls, ebony, sandalwood, and copra are the chief products.

Copra is the dried meat of the cocoanut. Great quantities of this are exported to other countries to be used in making cocoanut oil.

South of Australia is Tasmania. It is a British colony, and is somewhat larger than West Virginia. Its surface, climate, and products are similar to those of southeastern Australia. Wool is the chief export.

Where is New Zealand? Tell by the scale of miles how far it is from Australia. The two main islands of this group are about as large as Colorado. They are famous for their volcanoes, glaciers, geysers, and hot springs.

New Zealand is a part of the British Empire. The people are mostly engaged in farming and sheep raising. Wool and meat are the chief exports. *Auckland* is the principal seaport.

Find the Fiji Islands. To whom do they belong? The natives of these islands are Malays, who have been partially civilized. Sugar, copra, and bananas are produced.

Find the Samoa Islands. What islands of this group belong to the United States? Find the Hawaiian Islands. (Map, pages 36 and 37.) What have you learned about this group? (See page 71.)

On the map of the world (pages 36 and 37) you will see that there are many other island groups in the Pacific Ocean. Many of them are of coral formation, and some are volcanic. Although they lie in the hot belt, most of them have a delightful climate on account of the ocean winds. Cocoanuts, breadfruit, sugar cane, and bananas grow on these islands.

The breadfruit tree resembles our ash tree in form, but the leaves are much larger. The fruit is round or oval, and about six inches in diameter. When cooked, it is much like wheaten bread.

TEST AND REVIEW QUESTIONS.

99. In what latitude is Australia? How do its seasons differ from ours? What have you learned of its coast line? Of its lakes? Its rivers? Of the coral polyp? Describe the surface of the continent. Name some of its animals. Its plants. Its chief products. Its principal cities.

100. Where are the Dutch East Indies? What do they comprise? What of their people? Products? Capital? What have you learned of New Guinea? Tasmania? New Zealand? Fiji Islands? Samoa Islands? Philippine Islands? Hawaiian Islands? Other Pacific islands?

SIZE AND POPULATION

SUMMARY.

Length of the earth's axis (miles)		7,900
Length of the equator	"	24,900
Earth's Surface (sq. miles)		**196,900,000**
Pacific Ocean	" "	71,000,000
Atlantic Ocean	" "	34,000,000
Indian Ocean	" "	28,000,000
Antarctic Ocean	" "	2,700,000
Arctic Ocean	" "	4,000,000
The Sea	" "	**139,700,000**

	Area in Sq. Miles.	Population.
Asia	17,056,000	949,730,000
Africa	11,512,000	140,938,000
North America	9,431,000	129,438,000
South America	6,856,000	48,630,000
Europe	3,842,000	451,722,000
Australia, etc.	8,456,000	7,323,000
The Land	**57,153,000**	**1,727,781,000**

ASIA.

Russia in Asia	6,656,000	26,939,000
China, etc.	4,301,000	426,216,000
Japanese Empire	261,000	68,607,000
British India, etc.	1,918,000	321,451,000
Other British Possessions	20,000	1,002,000
Nepal, Bhutan	73,000	3,200,000
Portuguese India, etc.	1,000	669,000
Siam	245,000	6,320,000
Fr. Indo-China, etc.	256,000	16,573,000
Afghanistan	241,000	4,550,000
Persia	635,000	9,000,000
Turkey in Asia	706,000	17,178,000
Arabia	955,000	1,950,000
East Indies	788,000	46,075,000
Total	17,056,000	949,730,000

AFRICA.

Morocco	Including parts of the Sahara	176,000	7,000,000
Algeria		344,000	5,564,000
Tunis		65,000	1,923,000
Tripoli		406,000	1,000,000
Egypt		248,000	11,287,000
Sahara, remaining part		2,461,000	791,000
Abyssinia		312,000	8,330,000
Eritrea		42,000	331,000
British E. Africa		433,000	7,158,000
Somaliland, etc.		214,000	908,000
Sudan, etc.		2,972,000	50,422,000
Belgian Kongo		927,000	15,000,000
Angola		491,000	4,161,000
Mozambique		296,000	3,120,000
Ger. E. Africa		374,000	10,011,000
Ger. S. W. Africa		318,000	95,000
The Transvaal		114,000	1,677,000
Orange Free State		48,000	527,000
C. of Good Hope		277,000	2,563,000
Natal		35,000	1,192,000
Rhodesia		408,000	1,771,000
Other Br. S. Afr.		313,000	1,601,000
African Islands		238,000	4,506,000
Total		11,512,000	140,938,000

NORTH AMERICA.

	Area in Sq. Miles.	Population.
Greenl'd and Icel'd	877,000	98,000
British America	3,809,000	7,453,000
United States	3,089,000	91,972,000
Alaska	591,000	65,000
Mexico	767,000	15,063,000
Central America	206,000	5,593,000
West Indies	92,000	9,194,000
Total	9,431,000	129,438,000

SOUTH AMERICA.

Colombia	466,000	4,320,000
Venezuela	364,000	2,714,000
Guiana, Brit.	95,000	296,000
Guiana, Dutch	50,000	90,000
Guiana, French	30,000	49,000
Brazil	3,301,000	20,515,000
Ecuador (incl. Galapagos Islands)	119,000	1,500,000
Peru	439,000	4,586,000
Bolivia	442,000	2,268,000
Chile	293,000	3,255,000
Argentina	1,083,000	7,192,000
Paraguay	98,000	800,000
Uruguay	69,000	1,043,000
Islands	7,000	2,000
Total	6,856,000	48,630,000

EUROPE.

British Possessions		121,000	45,619,000
France		207,000	39,627,000
Spain		192,000	19,083,000
Portugal		36,000	5,424,000
Belgium		11,000	7,517,000
Netherlands		13,000	5,858,000
Denmark		15,000	2,775,000
German Empire		211,000	65,151,000
Switzerland		16,000	3,742,000
Austria-Hungary		261,000	51,324,000
Italy		111,000	34,698,000
Sweden		173,000	5,522,000
Norway		124,000	2,392,000
Russia in Europe		2,113,000	138,890,000
Turkey in Europe	Estimated	10,000	1,600,000
Bulgaria	Estimated	43,000	4,800,000
Roumania	Estimated	54,000	7,400,000
Servia	Estimated	34,000	4,300,000
Montenegro	Estimated	6,000	500,000
Albania	Estimated	11,000	900,000
Greece and islands	Estimated	46,000	4,600,000
Spitzbergen, etc.		34,000	
Total		3,842,000	451,722,000

AUSTRALIA, Etc.

Australia Com.	2,973,000	4,455,000
New Zealand	105,000	1,071,000
New Guinea Gr.	311,000	774,000
Hawaiian Islands	6,000	192,000
Other islands	61,000	831,000
South Polar Region	5,000,000	
Total	8,456,000	7,323,000

UNITED STATES.

Population according to the Federal Census of 1910.

	Sq. Miles.	Population.
Alabama	51,998	2,138,093
Arizona	113,956	204,354
Arkansas	53,335	1,574,449
California	158,297	2,377,549
Colorado	103,948	799,024
Connecticut	4,965	1,114,756
Delaware	2,370	202,322
District of Columbia	70	331,069
Florida	58,666	752,619
Georgia	59,265	2,609,121
Idaho	84,313	325,594
Illinois	56,665	5,638,591
Indiana	36,354	2,700,876
Iowa	56,147	2,224,771
Kansas	82,158	1,690,949
Kentucky	40,598	2,289,905
Louisiana	48,506	1,656,388
Maine	33,040	742,371
Maryland	12,327	1,295,346
Massachusetts	8,266	3,366,416
Michigan	57,980	2,810,173
Minnesota	84,682	2,075,708
Mississippi	46,865	1,797,114
Missouri	69,420	3,293,335
Montana	146,572	376,053
Nebraska	77,520	1,192,214
Nevada	110,690	81,875
New Hampshire	9,341	430,572
New Jersey	8,224	2,537,167
New Mexico	122,634	327,301
New York	49,204	9,113,614
North Carolina	52,426	2,206,287
North Dakota	70,837	577,056
Ohio	41,040	4,767,121
Oklahoma	70,057	1,657,155
Oregon	96,699	672,765
Pennsylvania	45,126	7,665,111
Rhode Island	1,248	542,610
South Carolina	30,989	1,515,400
South Dakota	77,615	583,888
Tennessee	42,022	2,184,789
Texas	265,896	3,896,542
Utah	84,990	373,351
Vermont	9,564	355,956
Virginia	42,627	2,061,612
Washington	69,127	1,141,990
West Virginia	24,170	1,221,119
Wisconsin	56,066	2,333,860
Wyoming	97,914	145,965
Part Great Lakes	61,730	
Total Main Body	*3,088,519*	*91,972,266*

Outlying Territory, Etc.

Ter. of Alaska	590,884	64,356
Ter. of Hawaii	6,449	191,909
Porto Rico	3,435	1,118,012
Philippine Is. ('03)	115,026	7,635,426
Tutuila, etc.	77	6,100
Guam	210	9,000
Canal Zone	474	50,000
Persons in the military and naval service of the U. S. stationed abroad		55,608
Total Outlying	*716,555*	*9,130,411*
Grand Total	*3,805,074*	*101,102,677*

POPULATION OF IMPORTANT CITIES IN THE UNITED STATES, 1910.

Albany, N.Y.	100,253	Duluth, Minn.	78,466	Memphis, Tenn.	131,105	St. Paul, Minn.	214,744
Albuquerque, N. Mex.	11,020	East St. Louis, Ill.	58,547	Meridian, Miss.	23,285	Salt Lake City, Utah	92,777
Atlanta, Ga.	154,839	Elizabeth, N.J.	73,409	Milwaukee, Wis.	373,857	San Antonio, Tex.	96,614
Augusta, Ga.	41,040	El Paso, Tex.	39,279	Minneapolis, Minn.	301,408	San Francisco, Cal.	416,912
Baltimore, Md.	558,485	Erie, Pa.	66,525	Mobile, Ala.	51,521	Savannah, Ga.	65,064
Birmingham, Ala.	132,685	Evansville, Ind.	69,647	Montgomery, Ala.	38,136	Scranton, Pa.	129,867
Boise, Ida.	17,358	Fall River, Mass.	119,295	Nashville, Tenn.	110,364	Seattle, Wash.	237,194
Boston, Mass.	670,585	Fargo, N.D.	14,331	Newark, N.J.	347,469	Sioux City, Iowa	47,828
Bridgeport, Conn.	102,054	Fort Wayne, Ind.	63,933	New Bedford, Mass.	96,652	Sioux Falls, S.D.	14,094
Brockton, Mass.	56,878	Fort Worth, Tex.	73,312	New Haven, Conn.	133,605	Somerville, Mass.	77,236
Buffalo, N.Y.	423,715	Galveston, Tex.	36,981	New Orleans, La.	339,075	Spokane, Wash.	104,402
Burlington, Vt.	20,468	Grand Rapids, Mich.	112,571	New York, N.Y.	4,766,883	Springfield, Ill.	51,678
Butte, Mont.	39,165	Harrisburg, Pa.	64,186	Norfolk, Va.	67,452	Springfield, Mass.	88,926
Cambridge, Mass.	104,839	Hartford, Conn.	98,915	Oakland, Cal.	150,174	Superior, Wis.	40,384
Camden, N.J.	94,538	Hoboken, N.J.	70,324	Oklahoma City, Okla.	64,205	Syracuse, N.Y.	137,249
Charleston, S.C.	58,833	Houston, Tex.	78,800	Omaha, Neb.	124,096	Tacoma, Wash.	83,743
Charlotte, N.C.	34,014	Indianapolis, Ind.	233,650	Paterson, N.J.	125,600	Tampa, Fla.	37,782
Chattanooga, Tenn.	44,604	Jackson, Miss.	21,262	Peoria, Ill.	66,950	Toledo, Ohio	168,497
Cheyenne, Wyo.	11,320	Jacksonville, Fla.	57,699	Philadelphia, Pa.	1,549,008	Topeka, Kan.	43,684
Chicago, Ill.	2,185,283	Jersey City, N.J.	267,779	Pittsburgh, Pa.	533,905	Trenton, N.J.	96,815
Cincinnati, Ohio	363,591	Kansas City, Kan.	82,331	Portland, Me.	58,571	Troy, N.Y.	76,813
Cleveland, Ohio	560,663	Kansas City, Mo.	248,381	Portland, Ore.	207,214	Tucson, Ariz.	13,193
Colorado Springs, Col.	29,078	Knoxville, Tenn.	36,346	Providence, R.I.	224,326	Utica, N.Y.	74,419
Columbus, Ohio	181,511	Lawrence, Mass.	85,892	Pueblo, Col.	44,395	Washington, D.C.	331,069
Covington, Ky.	53,270	Lincoln, Neb.	43,973	Reading, Pa.	96,071	Waterbury, Conn.	73,141
Dallas, Tex.	92,104	Little Rock, Ark.	45,941	Reno, Nev.	10,867	Wheeling, W.Va.	41,641
Davenport, Iowa	43,028	Los Angeles, Cal.	319,198	Richmond, Va.	127,628	Wichita, Kan.	52,450
Dayton, Ohio	116,577	Louisville, Ky.	223,928	Rochester, N.Y.	218,149	Wilkes-Barre, Pa.	67,105
Denver, Col.	213,381	Lowell, Mass.	106,294	Sacramento, Cal.	44,696	Wilmington, Del.	87,411
Des Moines, Iowa	86,368	Lynn, Mass.	89,336	Saginaw, Mich.	50,510	Wilmington, N.C.	25,748
Detroit, Mich.	465,766	Macon, Ga.	40,665	St. Joseph, Mo.	77,403	Worcester, Mass.	145,986
Dubuque, Iowa	38,494	Manchester, N.H.	70,063	St. Louis, Mo.	687,029	Yonkers, N.Y.	79,803

POPULATION OF IMPORTANT FOREIGN CITIES.

	Latest Census.				
Alexandria, Egypt	332,000 ('07)	Constantinople, Turkey	1,125,000	Montreal, Canada	471,000 ('11)
Amsterdam, Netherlands	567,000 ('09)	Copenhagen, Denmark	462,000 ('11)	Moscow, Russia	1,618,000 ('10)
Antwerp, Belgium	321,000 ('10)	Delhi, India	233,000 ('11)	Naples, Italy	723,000 ('11)
Athens, Greece	168,000 ('07)	Dublin, Ireland	309,000 ('11)	Odessa, Russia	540,000 ('10)
Bangkok, Siam	629,000 ('09)	Edinburgh, Scotland	320,000 ('11)	Paris, France	2,888,000 ('11)
Barcelona, Spain	560,000 ('10)	Glasgow, Scotland	783,000 ('11)	Peking, China	1,000,000
Belfast, Ireland	386,000 ('11)	Hague, Netherlands	273,000 ('09)	Quebec, Canada	78,000 ('11)
Berlin, Germany	2,071,000 ('10)	Hamburg, Germany	932,000 ('10)	Rio de Janeiro, Brazil	1,128,000 ('11)
Birmingham, England	526,000 ('11)	Havana, Cuba	320,000 ('10)	Rome, Italy	537,000 ('11)
Bombay, India	980,000 ('11)	Hongkong, Asia	366,000 ('11)	St. Petersburg, Russia	1,908,000 ('10)
Bordeaux, France	262,000 ('11)	Johannesburg, Transvaal	237,000 ('11)	Santiago, Chile	408,000 ('07)
Brussels, Belgium	196,000 ('10)	Lisbon, Portugal	356,000 ('00)	Shanghai, China	651,000 ('04)
Bucharest, Roumania	338,000 ('12)	Liverpool, England	747,000 ('11)	Stockholm, Sweden	342,000 ('10)
Budapest, Austria-Hungary	882,000 ('10)	London, England	7,253,000 ('11)	Sydney, New South Wales	637,000 ('11)
Buenos Aires, Argentina	1,320,000 ('11)	Lyons, France	524,000 ('11)	Tashkend, Rus. Turkestan	188,000 ('11)
Cairo, Egypt	655,000 ('07)	Madras, India	519,000 ('11)	Teheran, Persia	280,000
Calcutta, India	1,222,000 ('11)	Madrid, Spain	572,000 ('10)	Tokyo, Japan	2,186,000 ('09)
Canton, China	900,000 ('04)	Manchester, England	715,000 ('11)	Venice, Italy	161,000 ('11)
Cape Town, C. of Good Hope	67,000 ('11)	Marseilles, France	551,000 ('11)	Vienna, Austria-Hungary	2,031,000 ('10)
Christiania, Norway	244,000 ('10)	Melbourne, Victoria	592,000 ('11)	Warsaw, Russia	848,000 ('10)
Cologne, Germany	516,000 ('10)	Mexico, Mexico	471,000 ('10)	Yokohama, Japan	394,000 ('09)
		Milan, Italy	599,000 ('11)	Zurich, Switzerland	191,000 ('10)

MOUNTAINS AND PLATEAUS.

	Av. Elev. Feet.
Mount Everest	29,000
Himalaya Mountains	19,000
Andes Mountains	13,000
Caucasus Mountains	10,000
Rocky Mountains	10,000
Atlas Mountains	9,000
Alps Mountains	8,500
East Australian Mountains	5,000
Appalachian Mountains	2,500
Plateau of Tibet	15,000
Plateau of Bolivia	12,500
Rocky Mountain highland—	
in the United States	5,000
in Mexico	7,500
Abyssinian highland	6,500
Plateau of Iran	5,000
Desert of Gobi	3,500
Plateau of Guiana	2,000
Brazilian plateau	2,000

RIVERS AND THEIR BASINS.

	Area of Basin, Sq. Mi.	Mi. Long.		Area of Basin, Sq. Mi.	Mi. Long.
Amazon, S. America	2,320,000	3,400	Mississippi proper	1,250,000	2,600
Amur, Asia	780,000	2,700	Missouri	527,000	2,900
Arkansas, U.S.	189,000	2,000	Nelson-Saskatchewan, Can.	470,000	1,900
Colorado, U.S.	230,000	1,000	Niger, Africa	1,000,000	2,900
Columbia, N. America	290,000	1,400	Nile, Africa	1,300,000	3,900
Danube, Europe	320,000	1,800	Ob, Asia	1,100,000	3,000
Dnieper, Russia	197,000	1,300	Ohio, U.S.	202,000	1,260
Don, Russia	170,000	1,100	Orange, Africa	270,000	1,200
Euphrates, Asia	490,000	2,000	Orinoco, S. America	425,000	1,500
Ganges, India	600,000	1,800	Plata, S. America	1,150,000	2,500
Hoang, China	390,000	2,800	Rhine, Europe	87,000	810
Hudson, U.S.	13,000	300	Rio Grande, N. America	230,000	1,800
Indus, Asia	360,000	1,900	St. Lawrence, N. America	565,000	2,100
Kongo, Africa	1,500,000	2,800	São Francisco, Brazil	210,000	1,800
Lena, Siberia	900,000	2,800	Volga, Russia	590,000	2,300
Loire, France	47,000	600	Yangtze, China	690,000	3,100
Mackenzie, Canada	680,000	2,100	Yenisei, Asia	1,500,000	3,000
Mekong, Asia	280,000	2,600	Yukon, N. America	380,000	2,000
Mississippi-Missouri, U.S.	1,250,000	4,200	Zambezi, Africa	580,000	1,600

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